

THE CULTIVATOR

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TO IMPROVE THE SOIL AND THE MIND.

[SERIES.

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J. J. THOMAS, ASSOCIATE EDITOR, UNION SPRINGS, N. Y.

TERMS—FIFTY CENTS A YEAR.—Ten copies of the CULTIVATOR and Ten of the ANNUAL REGISTER OF RURAL AFFAIRS, with one of each free to the Agent, Five Dollars.

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The Cultivator & Country Gentleman.

HYDROPATHY IN THE GARDEN.

We gave our readers some suggestions in a late number, on the importance of Irrigation in the growth of farm crops, and inviting further inquiry and experiment. We now wish to direct the same kind of inquiry to the management of the fruit and vegetable garden.

The application of water artificially appears to have a useful effect on all crops that grow better in moist than in dry seasons. Meadows, for instance, as every one is aware, produce the largest growth of grass when we have plenty of rains, and are light when the early part of the season—the period of most rapid growth,—is dry. Farmers are familiar with the fact that wet swales give a heavier crop of grass, than dry knolls. And some have witnessed examples where the streams from clear springs, flowing in a slow current downward over meadow land, have marked a heavy growth on this watered streak. Rain or spring water, clear or turbid water, will always increase the growth of grass, if not in excess. (Wet, cold, water-soaked places, are often observed to give little else than coarse or sedge grasses—and they furnish examples of the evils of excess.) An example is familiar on our own grounds, where a meadow lay between the fork of two large creeks—partly flats and partly upland. One stream was always very turbid at the time of high water, the other clear. That portion of the meadow washed by the former was uniformly the heaviest, yielding usually three tons of hay per acre, and often more; the other about two and a half. The higher land, similar in quality, but not overflowed, yielded rarely over half a ton, and the line of demarcation between them (the line between the flowed and unflowed,) was as distinct as possible. The

* The same principle,—the benefit from a thin surface coating of soil on grass, has been proved by scattering fine soil over the surface artificially. Farmers are familiar with the strong and early growth of grass along the borders of corn and other cultivated fields, where earth has been scattered accidentally in turning the harrow or cultivator at the ends of rows.

whole proved conclusively the benefit of water alone, and the superior benefit of a thin deposit annually of simple mud, which had no fertility in itself greater than other soil.*

These remarks do not however apply to the subject in hand, further than to illustrate general principles. We may add, that discrimination is essential in watering different crops. The wet swale, for example, which will afford the heaviest grass, may produce the poorest corn; yet there is still a certain amount but, much less quantity of moisture essential to corn, for it may be parched and dried by extreme drought.

All vegetables which will receive high manuring, are improved by irrigation—such for instance, as celery, asparagus, rhubarb and cabbages. But the amount must be determined by judgment or some experience, and vary with the nature of the season. All who are familiar with the culture of the strawberry and raspberry, will remember the reduced size and inferior quality of both these fruits when a severe drought has occurred during the time of their ripening. We have known a heavy rain at such time, to double the size of the ripening Franconia raspberries, in two or three days. We have also seen ripening strawberries, placed accidentally under the slow drip of a water cart, doubled in size in twenty-four hours. The artificial watering has this advantage over the irrigation of rains—in being accompanied with no exclusion of warmth and sunlight—an exclusion usually attendant on natural watering, and rendering some of these fruits sourer and less palatable in wet seasons. As a general rule, fruits of a high and concentrated flavor, are rendered more pleasant by the diluting which they receive by irrigation; and seedy fruits, as some kinds of raspberries, are rendered more pulpy in the same way.

A late number of the Boston Cultivator contains an account of some experiments reported by Artemas Newell, of Needham, Mass., to the Norfolk Agricultural Society, on irrigating strawberries growing in a pear garden. A few acres of dry gravelly ridge were planted with dwarf pears, nine feet apart. Between each row, a bed for strawberries was formed, by back-furrowing very deep to the centre, thus making the bed three feet wide, with a furrow between each bed and row of trees, for the water to run in when needed. The water was let into a main channel which passed on the higher side and nearly at right angles to these rows. Between this channel and the rows a plank was placed, set on edge, and with a hole bored for each furrow between the pear rows and strawberry beds. A cork placed in each hole regulated or excluded the water at pleasure. The water passed off at the lower side and irrigated a meadow.

The results were, the pear trees made twice the growth of wood when well irrigated. The difference in the luxuriance of the trees could be seen at a long distance. "The best trees are where there is irrigation on the surface, and drain pipes laid directly under them, four feet below." We copy the statement of the mode of planting the strawberries, and the effects of the water upon them:—

"Strawberries I plant between the rows of pear trees, in deep, light beds three feet wide only. By this arrangement the soil is never trodden down either in planting, weeding, trimming, or picking the fruit, and they are much more easily kept free from weeds. The beds are liberally supplied with strong manure, placed in one deep furrow in the centre of the bed, at least one foot below the surface. One row of plants is set directly over the manure, the plants fifteen to eighteen inches apart. They are set in the month of May. The hole for the plant is made with a tool like a marlin-spike, reaching down well into the manure. The roots are let down and the hole is carefully filled with fine earth without pressing, then soaked with water, and dry earth placed over the top to prevent baking. The effect of placing the manure so deep, is to carry the roots of the plant through the manure to the soil in a dry time, to entirely cover the beds by autumn with the most vigorous plants, and to keep the seeds of weeds and grass so low that they will do no harm. The fruit is mostly grown on the new plants, which have derived their vigor from the manure chiefly through the roots of the original plant, the runners of which are cut off in the spring for the purpose of weeding, &c.

Most of my strawberry beds are watered liberally by a constant flow of water along the channels, which have been described. The results are, that the berries are large and fair; they do not ripen quite as early, but continue in bearing much longer; the crop is certain, even in the driest seasons, when those on dry land are cut off—sometimes before half the crop is matured. In fact, I deem irrigation almost indispensable for the successful cultivation of strawberries in dry seasons."

The irrigation of the meadow doubled the amount of hay.

We may remark in conclusion, that while Irrigation cannot supply the place of manure and good cultivation, it will doubtless prove an excellent auxiliary, where it is practicable to introduce it; and so far as gardening is concerned, deep and enriched soil, and thorough and mellow culture, will go far towards preventing the effects of drought, where irrigation cannot be introduced. A combination of both would, if managed with judgment, produce excellent results.

NOTICES OF NEW BOOKS.

Mr. JOHN PHIN of Rochester, has prepared a book on "Open Air Grape Culture," just published at \$1 by C. M. Saxton, 25 Park Row, New-York. It contains 375 pages and over one hundred illustrations.

"No one," remarks the author, "having even a few square feet of ground, should be without a Grape Vine. If the soil, aspect and exposure be good, a generous return of luscious fruit may be expected for a very trifling expenditure of time and money. If the conditions be otherwise, still, by care, a tolerable crop of Grapes may be obtained even in very unfavorable circumstances, and no fruit tree yields so quickly and so abundantly as the Vine." Mr. PHIN's object has been to compile a treatise on the ordinary management of the Grape, to meet the wants, not of professional vine-growers, so much as of amateurs and beginners, who are so frequently in want of some authority to which to turn for suggestions and guid-

ance. He takes up, quite systematically, the situation, aspect and protection required; the preparation of the Soil, as to draining, trenching, subsoiling, manuring, terracing or garden borders; the planting of the Vines, as to time, selection, distance, marking off for and digging the holes, taking up and putting in the plants, staking and after culture; their care for the three years ensuing, including mulching, treatment of laterals and winter protection; their management, when fruiting, in winter and summer; the subsequent treatment required, with the theory and practice of pruning and training, the construction of walls, trellises, &c., the different methods of propagation, manures and the effects of manuring, diseases and insects, methods of out-door forcing, etc. We next have a somewhat detailed account of several of the principal newer sorts of Native Grapes, and a convenient "tabular view of the size, color, shape, etc., of all the varieties of American Grapes of which any account can be found." A chapter follows on the Manufacture of Wine, and an Appendix, containing descriptions of several vineyards, and about fifty pages devoted to a full account of the Thomery system, translated from the French, and said to be highly recommended by Dr. GRANT.

Such is Mr. PHIN's programme. Judging from a cursory examination we should think it well carried out, and that the book would be of material assistance to the very large number, both in the city and on the farm, who are now seeking more light and information on the subject of which it treats. There is no variety of Fruit which is now attracting more attention in this country than the Grape.

Messrs. A. S. BARNES & BURR, the publishers of so many standard text books for our institutions of learning, of every grade from the infant school to the University, have just added to their list a new manual relating to a branch of education which has hitherto been far too greatly neglected. Its title is "The Boy Soldier," and it embraces a complete outline of Infantry Tactics precisely adapted to the wants of teachers and scholars in public and private schools. Its instructions are founded with care upon the authorized text-books; and it will amply suffice to supply the place of an experienced drill-master, for its directions are fully and clearly expressed and accompanied by all the necessary diagrams and figures. A large part of our readers, we are confident, will coincide in the opinion, both that thorough and systematic drilling will be a feature of attractiveness and promotive of health in our schools, and also that the experience through which the country is now passing, demonstrates the great convenience and usefulness of acquiring in youth at least this degree of Military knowledge.

Wool Exhibition at Ohio State Fair.

It is announced that the Ohio State Board of Agriculture has decided on having a grand exhibition of wool during the coming State Fair in that city, and for this purpose has established premiums and appointed awarding committees that will induce growers to send in their wool for competition. Four classes have been arranged, comprising Felting Wools, Delaine Wools, Cassimere Wools and Combing Wools. In each class there will be three premiums, of \$20, \$10, and \$5, respectively. None but actual growers are allowed to exhibit, and competition is open to all parts of the United States and the Canadas. Samples must contain not less than twenty fleeces. The Awarding Committees are partly composed of experienced eastern manufacturers and practical western wool men. A capacious building will be erected for the convenience of exhibition, and a wool sale at auction will close the Fair.

We greatly regret to hear of the recent death of Mr. JOHN W. HOLBERTON, Recording Secretary of the Ontario County Agricultural Society.

The Communication of Abortion among Cows.

[The disposition to "slink their calves," recently very prevalent among the cows in some dairy districts in this State, has naturally created much apprehension. When once started, there seems to be no way of arresting the difficulty; and it sometimes occurs when none of the reasons ordinarily given for its origin, will at all apply. Understanding that there was a theory among the dairy farmers near Philadelphia, as to the sources and communication of this very annoying and often ruinous difficulty, we wrote to D. B. HINMAN, Esq., President of the Chester County (Pa.) Ag. Society on the subject, and append his reply below. It will be seen that he presents a very strong argument in support of an explanation, which we have never before seen in print, and which if farther supported in the experience of Farmers in other localities, will prove of important service in promoting the eradication of abortion where it is now prevalent, or preventing its spreading where it may hereafter appear.—EDS. COUNTRY GENTLEMAN.]

HIGHFIELD FARM, May 15, 1862.

GENTLEMEN:—Yours of the 6th was duly received, and I have been unable to comply with your request until now.

Many of our intelligent farmers do not believe that abortion in cows is produced by anything they eat, or for the lack of anything they do not eat. Among these are many who claim that abortion, or rather the first case of abortion, is produced by accident. A fall, slip, injury by a master cow, or some such cause, produces in the herd the first abortion, which taking place in the yard, causes among the other cows a great excitement—sometimes even to pawing and bellowing, each one seeming anxious to smell of the dead calf. When, on the other hand, a cow drops a fully matured live calf in the presence of other cows, there is always perfect quietness and a disposition among the other animals to withdraw to some other part of the yard. I presume that most observing farmers have noticed this.

We think that when the first case has occurred, and the disease has spread among the herd from mere sympathy, it is continued to the next year and perpetuated through the agency of the bull.

It is almost universally the case that an aborting cow comes into heat much sooner than a cow that goes her full time—frequently within a very short time, and is served by the bull while her organs are much diseased; and the bull, serving a healthy cow soon after, will communicate the disease to her, upon somewhat the same principle as venereal diseases are communicated in an other species. How long after serving a diseased cow, the bull will communicate the disease to a healthy cow we cannot say.

I will mention a few cases among a great many that have occurred in this neighborhood, as some evidence of the truthfulness of this bull theory. A large number of Mr. A.'s cows abort; his bull, a fine Alderney, serves them. He living near the village, a number of persons keeping but a single cow, send their cows to this bull; out of six sent to and served by him, five aborted between five and seven months; these cows had never aborted before and have not since.

Abortion prevailed in another herd. The cows during the spring are all sold to one party and the bull to another party. The party purchasing the bull did not believe in the bull theory, but the next season nearly every cow served by the bull aborted. No abortion had taken place on this farm previous to this, and nearly every cow from adjoining farms served by this bull also aborted.

Another case. Mr. D. sells all his cows and retains his bull; the next season his cows abort quite as bad as before.

If your readers who are interested in this subject, will give it their attention, I am quite sure they will find many facts to sustain the theory.

H.

NICARAGUA.

EXTRACT FROM A RECENT LETTER TO THE CULTIVATOR, FROM HON. A. B. DICKINSON, U. S. Minister.

Character of Rivers and Springs in Central America.

The first thing which attracted my attention in Central America, was the excessive whiteness of the wearing apparel of all classes. If not made entirely clean by the washerwoman, the linens and muslins were nevertheless so white that the first inquiry I made after inquiring about the soil was, with what water and by what process are your clothes washed? I got no clue to the secret till I went to the washerwoman, who told me that they always went to the rivers, creeks or springs, and never used rainwater if they could get to any of these places by travelling a mile, or even two. I soon learned the reason of it. In travelling through the country I found a little village where nothing of this nice bleaching was seen. They replied to my inquiry, that no spring or stream could be reached within eight miles, and so they were compelled to wash with rainwater. This led me to investigate the matter, and I discovered that rainwater could be improved a hundred per cent. by having the proper quantity of alkali mixed with it, to slip the dirt out and bleach the clothing. There was no plant growing here that I had ever seen before by which I could detect the character of the soil, though I could tell its depth by the growing trees, and various other indications. The streams, though strongly alkaline in character, were so remarkably clear, and in general appearance so unlike the alkali drainage of other countries, and the vegetable growth so rapid and profuse, that I was completely lost. To see a soil that had been cultivated for the last three hundred years in the manner best calculated to destroy it, still hold out to be the strongest and most prolific soil that my eyes ever rested upon, was almost as great a wonder as the wisdom-confounding phenomenon of Liebig.

The Plain of Leon Fertilized by Volcanic Fires.

I found the magnificent plain of Leon, surrounded by blue-topped volcanoes, and covering hundreds of square miles in extent, with a deep and finely pulverized soil of most wonderful fertility, strongly impregnated with alkali, closely resembling an alluvial deposit, yet showing no sign of a watery formation, and I was lost in wonder and perplexity, until an astounding fact was revealed to me. It was made not by water, but by fire. The huge volcanic furnaces now standing around in silent grandeur were once in full blast, fusing the solid earth with all its buried treasures into a molten mass, and casting it forth into the cooling atmosphere to descend upon the earth in fine impalpable powder, containing the richest fertilizing ingredients. Millions of tons of solid earth were thus sifted through the atmosphere, and spread as softly and as evenly over the surface as the gently falling snow. Here was a process equally powerful, equally grand, but how different from that which formed the great valley of the Mississippi.

The eruption of one of these volcanoes in the year 1835, filled and darkened the atmosphere for three days, and covered the face of the earth with its fertilizing treasures over the whole of Central America. The vast plain of Leon was covered with darkness and filled with gloom and consternation for three memorable days. When the volcanic storm cleared away, and the smiling heavens again appeared, the entire plain was covered over to a depth of several inches with a fertilizing material of inexhaustible richness made by the Great Chemist—who never makes a mistake—with the earth for his crucible and the heavens for his purifier. Thus the soil of this country is kept blooming in perennial beauty, and supplied with inexhaustible plenty. A. B. DICKINSON.

ORCHARDS---REVERSED ECONOMY.

In conversing recently with an intelligent farmer of Orange county, he stated that most of the orchards in his neighborhood had been destroyed by the borer. He saved his own by covering the trunks at the roots and for six inches upwards with a thin coating of grafting-wax, and then for protecting this coating, wrapping it around with a strip of muslin. This covering remains for a year or two, when it has to be removed. It answers the purpose effectually. It is not so cheap, nor so easily applied as soft soap, although the latter requires two applications yearly, yet costly as it may be, it is an expenditure that affords a return of more than one thousand per cent. The cost of thus treating a hundred trees would be perhaps one day's labor, and the cost of the wax and muslin for a young or medium orchard, may be two dollars more. The three dollars expense thus expended yearly, are to be placed against the crop of one hundred trees, saved by the application. It is a very poor orchard that will not afford one dollar as an annual average per tree. The cost of this protection may therefore be regarded as effecting a saving of one hundred—a profit on the expenditure of not merely one thousand per cent., but over three thousand.

It may be proper to remark, in passing, for the information of some readers, that the grafting wax, soft soap, or any other external application, only *excludes* the borer after its use, and does not destroy those which have already entered. These must be killed by a flexible wire thrust into their holes, the knife being previously used for clearing the passage where necessary.

Our informant, above mentioned, also informed us that his neighbors could not be induced to give any attention whatever to their orchards oftener than once in about three years, and consequently such unfrequent care availed nothing after the insects had obtained full possession.

A similar loss occurs from any other neglect of orchards, especially during the younger stages of their growth. Newly transplanted trees, will grow five times as fast for being kept well cultivated, as those which are allowed to become enveloped in weeds and grass; and for several years afterwards the contrast of results from these two modes of treatment is very striking. An expenditure of five dollars per acre annually, according to a safe estimate, will bring a young orchard into as good and productive condition, as at least twenty years of neglect. Ten years of good crops are thus secured by the small annual outlay.

Experience has amply proved that one acre of orchard, composed of good, productive, marketable varieties, may be relied on for affording at least fifty dollars per acre yearly. Skillful managers, who raise finer than the average quality sold in market, and who thus secure by special contract with dealers, a higher price, (additional care being also given to picking, selecting, and packing,) have obtained from one to three hundred dollars per acre.

A prominent reason why farming proves unprofitable, is the want of a proper expenditure of capital in cases where it will bring a large return; but in nothing is this truth more strikingly apparent than in the neglect of orchards, and their proper care and cultivation.

Mr. H. B. ALLEN of Schenectady county sends us a sample bottle of "Cider Wine," made in the autumn of 1860 from a COUNTRY GENTLEMAN recipe, which has given very good satisfaction in his experience.

INQUIRIES ON FRUIT CULTURE.

1. I wish to know whether the quince can be grafted upon the pear. (1.)
2. Is there any mode of distinguishing the dwarf pear from the standard?
3. How are pears dwarfed? (2.)
4. Does the nectarine grow from the seed—also the apricot? (3.)
5. Is there any such thing as the ground almond—if so, where can it be procured? (4.)

D. C.

New-Brunswick, N. J.

1. We are not aware that the pear has ever been used as a stock for the quince, but it has often occurred to us that it might be useful in preventing the attacks of the borer, as this insect, which frequently destroys the quince, rarely touches the pear.

2. Those who are familiar with the appearance of the bark can readily distinguish a dwarf from a standard pear, by observing the quince bottom of the former. Dwarfs being usually trained unlike the standard, commonly enables any one to see the difference. The swollen ring at the union of the pear and quince, is another indication. Pears are usually dwarfed by working on the French quince as a stock. Other stocks, as thorn, mountain ash, apple, &c., have been used, but the trees commonly soon fail on these, and they have long since been discarded.

3. The nectarine, which is a smooth skinned variety of the peach, is usually propagated by budding on the peach stock. The stones of nectarines commonly bring nectarines by planting, but not always. Lindley says there are various instances where peaches and nectarines have grown on the same tree, and we have witnessed an example of this sort, for one season only, the nectarine being hardly so glossy as common nectarines. The apricot belongs to a different genus from the peach, or to the same as the plum, but is a perfectly distinct species. The stone is smooth, like the plum stone, and always produces apricots; although to secure good sorts, it must be worked by budding on the peach, apricot or plum stock.

4. There are two dwarf species of almond, but they are both ornamental only.

FLAX COTTON.

The Legislature having appropriated the sum of \$2,000 for the machinery to test the experiment of manufacturing *Flax Cotton*, to be expended under the direction of the State Agricultural Society, the Executive Committee would call the attention of those interested in the culture and preparation of flax to this subject. The object of the Legislature was undoubtedly to secure a preparation of flax as an economical substitute for cotton, so as to be used on cotton machinery. The Executive Committee desire to carry out the wishes of the Legislature, and to have this experiment fairly tested, and would solicit experiments showing the preparation of flax for this purpose, accompanied with a statement of the culture, production and preparation, including the cost of the various processes employed.

Whenever parties have tested these questions, and are prepared to submit their proceedings, a committee of competent judges will be selected to make the necessary examination, and report to the Executive Committee, for their action, the result of their investigations. Should any of those engaged in making these experiments succeed in accomplishing the object desired, the money will be apportioned to the successful competitors as may be deemed proper.

All communications on this subject may be addressed to the Secretary, State Agricultural Rooms, Albany.

Albany, May 26, 1862.

B. P. JOHNSON, Secretary.

MASSACHUSETTS AGRICULTURE.

Massachusetts is a small state in territory. There are but three of the sister states behind her in this respect. Divide the State of New-York into parcels of equal dimensions, and she would give six states. Virginia is eight and one-half times as large; Missouri has nine times as much land. Texas could spread twenty-nine such states on her soil without crowding them, and California has a lap capacious enough to hold twenty-five such states. She has the most sea-coast in proportion to her size, of any state in the Union, excepting perhaps the peninsula of Florida, the Atlantic forming the whole of her eastern and full one-fourth of her southern boundary. This exposes her to the blasting influence of east winds at all seasons of the year.

Her soil is of all elevations from the level of the ocean to the summit of Graylock, in Berkshire, 3,500 feet above tide water. Her natural productions were heavy forests, rocks and ice. The former have yielded to the progress of civilization and the arts. Her rocks gave firm footing to the Pilgrims when they landed at Plymouth, and have become enduring monuments of the country's history, at Bunker Hill and in Charleston harbor. Her ice has become an article of traffic in India and throughout the tropical regions.

She has sent forth her sons and daughters into all lands, and is liberally represented in all the settled portions of the North and West. Still she has now on her small farm, a home population of a million and a fourth of inhabitants, ranking the sixth state in the Union in free population. Still she has room and ample employment for more.

Her soil is hard, but yields liberally to the skill of the cultivator. Her winters are long, extending almost to the dawning of summer. Her springs are short, and the transitions they produce resemble the work of magic. Her autumns are long and beautiful—some portions of them magnificent through beauty of her scenery.

As is usual in all new countries, agriculture was the earliest employment of her inhabitants: when first cleared of the heavy forests, the virgin soil yielded flattering returns to the labor of the husbandman, by the practice which to the present day is too prevalent in all new countries, of cropping without returning any manures to the soil.

It was not until the commencement of the present century, that special efforts were made for a general improvement of her agriculture. The Berkshire Society got under successful headway in 1811, and other associations of a similar character were soon formed in other parts of the State. As a proof of the efficiency of their labors, twenty-five such societies now exist under the patronage of the State, or nearly an average of two to each county. Of these, there are three in Berkshire, to wit, the Berkshire, with a permanent fund of \$12,000. The amount paid by this Society in premiums is \$1,188. The Housatonic in South Berkshire, with a fund of \$10,716, and the Hoosac Valley, a young institution, fund \$2,000. The amount paid in premiums by the Housatonic is \$802, and Hoosac Valley \$334.50. The funded property owned by the three societies in Berkshire, is \$24,716, and the amount paid by the them (collectively) in premiums, is \$2,324.50.

The amount annually disbursed by the State to her twenty-five Agricultural Societies, is \$13,196.95. They paid out in premiums and gratuities in 1860, \$13,323.03. The amount invested in permanent funds by the several

societies, is \$197,212.20. The value of real estate held by these societies, mainly in fair grounds and buildings, is \$153,001.21.

In addition to these twenty-five societies, there are many Town Associations, Farmers' Clubs, &c., which hold annual exhibitions and award premiums, from funds raised from their own resources. These Club exhibitions are sometimes large, and always beneficial. One great advantage of them is, that they come within the reach of many to whom circumstances cut off the privilege of attending larger fairs.

Another benefit arises from them, in that their members hold stated meetings during the winter, when lectures are given, experiences related, agricultural subjects discussed, and the bonds of social good feeling strengthened. At the commencement of the present winter there were over fifty such associations in the State. They are now so popular from the good effects resulting from them, and the good cheer always abounding, that the number has no doubt nobly increased.

AGRICULTURAL LIBRARIES.—Every year goes to show most conclusively, that agriculture is entitled to a position among the learned professions. Why should it not be? The physician, who has only to do with his own species, must not only be educated, but he must spend his life in anxious study if he would win success in his employment. He must have a library.

The lawyer, a member of a profession that owes its existence to human folly, rather than human necessity, must be educated. He must have his library.

The farmer must feed all. The whole class of mortals are as dependant on him as on the physician. He is of more importance in community than a legion of lawyers. The whole natural world is included in the sphere of his operations. Storm, wind or sunshine, come to aid or blight his prospects, according to their appointment. The birds, beasts and insects have to do with his labors. Indeed every thing in the air above and on the earth goes for his benefit or annoyance. How important that he should be acquainted with all these? To be so he must not only study but observe. A library should be considered as important to him as to any class of men.

Such libraries, even by individuals, are now easily obtained. A set of the COUNTRY GENTLEMAN, which costs but little, will give to any farmer an amount of knowledge worth ten times its cost for present reading, and is of incalculable benefit as a work of reference. So with other papers. So with many of the books now published. Every farmer can and should have a library. There are many private libraries in Massachusetts. There are in other states. In Massachusetts, however, there were two hundred public agricultural libraries, very near two to every three towns. This number will soon be much larger. There are but few towns in the old Bay State so regardless of the advance of the age, but that they will establish such libraries.

But the crowning effort for the advancement of agriculture in our ancient Commonwealth, is its introduction as a branch of study. This is beginning at the right place to build up a thorough system of agricultural training. It commences at the right period of life, and it extends the benefit it affords to all. The rich and the poor are on an equal platform there, to start in the race of life, and each can make improvement according to their perseverance.

It is with great pleasure that we learn of the successful introduction of the "Manual of Agriculture" into these schools. It omens a bright dawning in the long sought day, when the principles it inculcates should be made subjects of school education. May its success be as triumphant as the facts it contains are valuable in the successful practice of the rural arts.

WM. BACON.
Richmond, Mass.

[For the Country Gentleman and Cultivator.]

Average Yield of Milk and Butter per Cow.

MESSRS. EDITORS—As the statements which are given to the public from time to time, in this and other journals, in regard to the yield of milk and butter of different cows and different dairies, vary very much, and as there does not seem to be any settled and universally acknowledged average, which might serve as a useful standard of comparison for these *widely varying* reported yields, it occurred some time ago to the writer of this, that inasmuch as a standard of judgment of this kind, obtained from the collection and collation of a very large number of facts, and getting therefrom an approximation to a true average of the whole, a considerable contribution might be made towards this desirable object, by treating in the way just named, the very large number of facts of this kind in the two volumes of the COUNTRY GENTLEMAN for 1861. Among the advantages of an average obtained from so large a collection of cases that the result might be considered a *standard* of comparison, this would be one, viz., that whenever a farmer should find his own dairy *below* the average, he might thereby be stimulated to investigate, and if possible to discover the cause or causes of his failure;—an investigation which could scarcely fail to be of much use to him, as it would lead him to a better acquaintance with the best established facts and opinions as to the dairy qualities of various breeds; the best methods of feeding cows, both in winter and summer; the best kinds of grass for pasture; the value of top-dressings with bones and other fertilizers, as well as some other things having an influence upon the prosperity of a dairy. So too, when reports were made of yields *much above* the settled or approximate average, it might lead the reporter to benefit the public by a statement of the modes of feeding and otherwise managing the cows, by which in his opinion the extra or above-average yield had been obtained.

As a contribution towards obtaining such a standard of comparison, by which the foregoing and other advantages might be secured, we commenced in a previous article, (see Co. GENT., May 1,) a summary of the several statements relative to the yield of milk and butter which have been put upon record in the successive issues of this journal for 1861. Resuming this abstract where it was left off in our former article, we find at page 252, vol. 17, an article by J. L. R. of Jefferson Co., in which he maintains that the yield of dairies is usually about in proportion to the treatment the cows have received, that is, the kind of food given to the cows, both when in milk, and when dry. "When the yield has been large and remunerative, the cows have been well cared for—have had a *full supply* of good, nutritious food." In illustration of the fact that the difference between a full supply of good nutritious food and a short allowance, makes quite a difference in dairy products, he gives some details as to a lot of ten cows which were kept through one winter on straw, and which averaged during the next season only about 150 lbs. of butter, while his had averaged over 230 lbs.—two being heifers. This was a difference of 80 lbs. per cow, which at 20 cts. per lb., amounted to \$16; and if so much had been expended on hay and meal for each cow, the probability is that there would have been a full return for the better feed in the more abundant product of butter. At all events, so confident is J. L. R. in the close connection between good feed and a full supply of it, that with a good lot of cows of full age, that have been well kept from calf-hood, he would not give one dollar to be insured a yield of 240 lbs. of butter to the cow, in a fair average season.

The next article, furnishing *data* for our present purpose, is the very interesting and instructive one by S. L. WATTLES of Delaware Co., N. Y., (Co. GENT., vol. 17, p. 273,) which we have seen either quoted or noticed in almost every agricultural journal, both British and American, which has fallen under our observation. Mr. W.

gives statistics of his dairying or butter-making for eight successive years, from 1853 to 1860, and the following is the average yield of butter per cow for these years respectively:—

1853, average per cow.....	250 lbs.	1857, average per cow.....	218 lbs.
1854, do. do.	216 "	1858, do. do.	211 "
1855, do. do.	231 "	1859, do. do.	242 "
1856, do. do.	215 "	1860, do. do.	206 "

These averages are probably a little less than they might have been fairly enough called, as Mr. W. has had heifers in his dairy every year, and has rated 2-year olds as two-thirds full grown cows, and 3-year olds sometimes at the same rate, and sometimes as full grown cows, notwithstanding that according to his experience, (with which agrees that of ourselves and others,) a 2-year old heifer will not generally make more than half the butter in one season as she will make after she becomes six years old, nor a 3-year old over two-thirds as much butter as when a full-grown cow. Another fact is to be taken into consideration in endeavoring to estimate aright these averages, viz., that Mr. Wattles' cows were mostly small in size, and *all of the common breed*, with the exception of one heifer, which was a half-blood Ayrshire, and is spoken of as quite superior both for milk and butter. She is taken account of only during 1860, the last of the eight years.

After making allowance for these considerations, which would warrant us in raising Mr. W.'s averages, especially if to be put into comparison or into a general reckoning with those obtained from dairies of larger cows and of "improved" breeds, the results are of *more than usual value as data* for the determination of a *general average*. His statistics extend over a comparatively large number of years, and his stock of cows was large enough—usually 12 to 14—to render the account of the general average production of much more value than such accounts are when the stock of cows is smaller, and probably more select, or when only one extra cow is the subject of report, or when the account is confined to a single year, in which circumstances may have been more than usually favorable or unfavorable.

The average yield of butter in the dairy of Mr. W. differs so much from that in the dairy of Mr. Pratt, (see page 291,) though the cows in both were of the kind called native, Mr. W.'s general average for eight years being 231 lbs., and that of Mr. P. for four years being 159½ lbs., as to make it very desirable that some explanation should be made as to the cause. Can any of the readers of this throw any light upon the subject? AGRICOLA.

[For the Country Gentleman and Cultivator.]

Spring and Summer Beverage.

The following recipe from a New-York paper, has been pretty thoroughly tested in this vicinity, and gives good satisfaction. To such as need a spring drink, to prepare the system for the change of season, it will be highly useful. The cherry bark and sarsaparilla, can be found in most localities in the woods, or the whole can be bought at the druggists for a small sum, (4 or 5 dimes.) There is nothing particular about the dose—from a tablespoonful to a teacupful once or twice a day, as may be agreeable:

One pound sarsaparilla—12 ounces wild cherry bark—6 ounces liquorice root—1 ounce gentian—1 ounce mandrake root—1 teaspoonful cinnamon—half do. red pepper. Simmer the whole in 6 gallons water till it is reduced one-half—then strain and bottle it. ST. LAWRENCE.

How to Clarify Quills.

Cut off the small top of the quill, tie them *loosely* in bundles, fix them nearly upright in a saucepan of water, in which a small piece of alum has been dissolved—about the size of a walnut of alum to a quart of water; let them boil slowly until they become clear; add a little tumeric or a small pinch of saffron to the water to give them the yellow color; dry them in the sun. You should tie paper round the feather part of the quills to keep them from dust. You can increase the quantity of alum according as you wish the quills more or less brittle.—*Irish Far. Gazette.*

The National Department of Agriculture.

We have not seen the law recently passed by Congress, establishing a Department of Agriculture, but give below the substance of it, as we find it in the newspapers:

1st. That hereby is established at the seat of the United States Government, a Department of Agriculture, the designs and duties of which shall be to acquire and diffuse among the people useful information connected with agriculture; also to procure, propagate and distribute seeds and plants.

2d. The President shall appoint, with the advice and consent of the Senate, a Commissioner of Agriculture, as the executive officer of the Department, he holding his office by a tenure similar to that of other civil officers appointed by the President, with a salary of \$3,000 per annum.

3d. The duty of said Commissioner shall be to acquire and preserve in the Department, all information concerning agriculture which he can obtain through books, correspondence, and by scientific experiments, the records of which shall be kept in the office, by a collection of statistics, and by other appropriate means within his power, to collect new and valuable seeds and plants, to test such as require it, to propagate such as are worthy, and distribute them among agriculturists. He shall report in writing to the President annually, in which he may recommend the publication of papers forming parts of, or accompanying his report, which shall also contain an account of all moneys received and expended by him; he shall also make special reports on particular subjects, whenever required to do so by the President or either house of Congress, or when he shall think the subject in his charge requires it. He shall have charge of the property of the Agricultural Division of the Patent Office in the Department of the Interior, including the fixtures and property of the propagating garden. He shall direct and superintend the expenditure of all money appropriated by Congress to the Department. He may send and receive through the mails free of charge, all communications and other matter pertaining to the business of his Department, not exceeding in weight, 32 ounces.

4th. The Commissioner of Agriculture shall appoint a Chief clerk with a salary of \$2,000, who, in absence of the Commissioner shall perform the duties of the same; and he shall appoint such other employees as Congress may provide, with salaries corresponding to those of similar officers in other Governmental Departments; and he shall employ other persons, as Congress may provide, for such time as their services may be needed, including chemists, botanists, entomologists, and other persons skilled in the natural sciences pertaining to agriculture. Said Commissioner, with all persons employed in his Department, shall make oath or affirmation to execute the trust committed to him; and said Commissioner and chief clerk shall also give bonds to the United States Treasurer, the former in the sum of \$10,000, and the latter \$5,000, for the faithful discharge of their several trusts and duties.

This law was approved by the President on the 15th of May, and shortly afterwards he nominated ISAAC NEWTON of Pennsylvania, the present Chief Clerk of the Agricultural Department of the Patent Office, as Commissioner, but the nomination has not as yet, we believe, been confirmed by the Senate.

[For the Country Gentleman and Cultivator.]

RECIPE FOR A BREAD PUDDING.

Take one quart sweet milk, 3 ounces of light wheat bread, (salt raising bread is best.) Soak the bread in the milk till it is soft, then mash it fine, add two well beaten eggs, a pinch of salt, a lump of butter about the size of a hickory nut, and a small teacup of sugar. Season with nutmeg, or a few slices of lemon; bake in a brisk oven one hour; raisins may be added if desired.

This makes an excellent pudding, far better, I think, than the popped corn pudding advertised in Greely's New-York Tribune a year or two ago. AVIS. Benton Co., Iowa.

GERMINATION OF SEEDS

MESSRS. EDITORS—I have read with much interest in the COUNTRY GENTLEMAN of March 6th, "*the Conditions of Germination*," from the pen of Professor JOHNSON. The article abounds with many good suggestions, and is in the main correct. I desire, however, to correct an error that he has fallen into in asserting that "the seeds of the willow and coffee will not grow after having once become dry, but must be sown when fresh; the former loses its germinative power in two, the latter in six weeks after ripening."

In regard to the willow, I have nothing to say, for I have no practical knowledge on the subject. But for the information of the Professor, allow me to say that in much of the country where coffee is grown, the year is about equally divided into the wet and the dry seasons. The coffee matures about the end of the wet, or the commencement of the dry season, at which time it is gathered. It is planted at the beginning of the wet season, after the soil has become sufficiently moistened for the seed to germinate. If the seed has been well taken care of, and is properly planted, it sprouts and grows without difficulty. It will be seen therefore, that instead of losing its germinative power in six weeks, six months is the earliest period in which it can properly be planted. The men who plant and raise coffee-nurseries in Nicaragua and Costa Rica—where coffee equal to the best in the world is grown, are not particular whether the seed is of the same year's growth, or one, two, or even three years old; as its germinating properties do not appear to depend so much upon its age, as on the manner in which it is cured. They are very careful and particular in curing that which is designed for seed, in the house or shade, as either excessive sun or moisture is fatal to its growth.

Nothing is truer as a general rule than that the newer the seed the better the result; yet there are exceptions to this rule. Experience has proved that in localities where the bug preys on the pea, it is much better to keep the seed over for a year or two for the purpose of eradicating the bugs and preventing their communication to the succeeding crop.

Professor Johnson also observes that "Loudet made trials in 1856-7, with seed wheat of the years 1856, '55, '54 and '53," and that the result was that none of the wheat of '53 grew.

I do not think that Loudet's experiments were a fair test, as I have sowed wheat of nine years' age, that nearly all grew.

The parsnip suffers more from long keeping than any other seed with which I am acquainted. It is always wise for a farmer to burn what parsnip seed remains after planting for the season, as very little of it will grow the second, and next to none the third year.

Leon, Nicaragua, May 1, 1862.

A. B. DICKINSON.

Value of Coal Ashes.

A correspondent of the Dairy Farmer says—"The only object which I had in view at first in using this article, was that of absorbing the liquid portions of manure about the stables, which was done by scattering them upon the lowest parts of the floor every morning after cleaning out the stables, at which arrangement the fowls of the barn seemed perfectly delighted, as they immediately commenced devouring certain portions of the ashes as eagerly as though it was corn; the result of which has been, that we have been supplied with an unusual quantity of eggs during the winter season; as this article most likely furnishes them with the necessary material for forming the shell. The next advantage was that of seeing the cattle take their places in the stable, without slipping and falling, as they frequently did before the ashes were used."

[For the Country Gentleman and Cultivator.]

HAYING--BUILDING STACKS AND RICKS.

"When now the grass, oft-turned beneath the sun,
Is dry and crisp, and rustles to the tread,
Then comes the rake with many a long-drawn sweep,
Gleaning the shaven grass, until the plain,
Rough with the sultry stacks, appears a field,
Thick set with russet tents."

T. B. READ.

"S. EDWARDS TODD—I have been very much interested and profited in your communications for the CO. GENT., for several years past, and my apology for writing to you is, to ask if you can and will assist me by your pen, in rigging a hay elevator for building a hay rick. As I put all my grain in my barns, I have been accustomed to secure my hay in a rick, fifty or sixty feet long, and about twenty-five feet high; and we find the labor of pitching so much hay so hard and expensive, that if possible I would, as you have formerly recommended, make my horses pitch the hay. I have no doubt that very many of the readers of the COUNTRY GENTLEMAN besides myself, would be very much profited by such an article as I think you could give us.

T. W. R."

In my travels through various parts of our country, both in New England and the Western States, I have been not a little surprised to find such a great want of skill and good management in securing the hay crop; and, I have been still more surprised to learn that those farmers, who always perform every job in the hardest and most expensive way, do not appear to think there is any easier way of performing such hard jobs, as pitching hay, except to do it by hand, as our good fathers did.

In New-England, last season, I saw many farmers who make much hay, tugging and sweating, and lifting with all their might for one hour to get a ton of hay into the mow, when they had two strong, fat horses standing idle, which would have pitched such a load off in ten minutes. In one place I saw four men working faithfully for about one hour, to get a ton of hay into the upper part of the mow, and when I told them that for a few dollars they could obtain a horse fork, with which one man could pitch such a load twenty feet high in ten minutes, they replied that they had never heard of such a thing.

In Pennsylvania on some grain farms the grain is all put in the barn, and the hay is secured in ricks, which are sometimes sixty feet long, and from twenty to twenty-five feet high, and from fourteen to sixteen feet wide. The usual way of building such ricks is, as soon as they are so high that a man cannot raise a forkful on the rick from a load, to place a load by the side of a rick, and then pitch the hay from one load to another, and then to the rick. This practice is also adopted in building stacks. In either case the progress is slow, and the labor hard.

In order that we may all appreciate what may be penned with reference to the different modes of pitching hay with horses, let us pen a few thoughts, for the benefit of beginners, with reference to

The Correct Way to Stack Hay.

There is more science in building a stack of hay correctly than most people have ever supposed. A man may build a *handsome* stack, but it may be built in such a manner that it will not turn the rain well. And if it does not turn rain well, be it ever so handsome, it is not stacked correctly.

Square corners in the upper part of a stack should always be avoided, because hay will not turn water as well where the corners are square as where the top is round. And, more than all, a round stack always *looks* better than a square one.

It is not essential that there should be a bilge in a stack in order to have it turn rain well. A bilge in a stack is only a matter of taste. The main object is to place the hay in the best possible position to turn rain.

There is a *wrong* way and a *right* way to stack hay, and many men adopt the *wrong* way, and build a handsome

stack, but it will not turn rain well. I will describe the wrong way of building a stack.

Beginning at the circumference of a stack first is always wrong, because the practice tends to keep the middle of a stack the lowest, which should always be avoided.

The correct way is to commence at the centre and place forkful after forkful round and round the centre, until the stack is as large as is desirable. The middle should always be kept a foot or more higher than the circumference. This is particularly essential, after we begin to "narrow up," or "to draw in" the sides.

When laying the outside course of forkfuls great care should be exercised to place as many bunches of hay up and down as may be practicable, as the spears of hay will carry off the water very much better when they are placed lengthwise—up and down the stack—than they will when they are crosswise and lying in every other position. By the exercise of a little good skill in placing the hay with a fork, most of the spears of hay will be in the best position to carry off the rain.

It is very difficult to tell with a pen how this is to be done with skill. With a fork, on a stack, the instructions would be quite easy.

Stacking Round a Pole.

Although a pole in the centre of a stack is sometimes objectionable, still it is better to have a pole in the center whenever it is practicable.

There are several cogent reasons in favor of having a good stiff pole set firmly in the ground in the centre of a stack. One very important advantage is it furnishes an undeviating center to work by when carrying up the stack, which is very important, as every good stacker will admit. When there is a pole in the centre the stacker will be enabled to commence the foundation more accurately, as he can measure at any time with a light measuring pole, to ascertain whether the stack is round, or whether he is laying out the sides or drawing them in.

Another very important advantage in having a pole is it keeps a stack erect when it is settling, and it holds the top and the entire stack from being blown over by the wind. Beginners should always build a stack around a pole or tall tree until they can stack well without a pole.

Pitching Hay on a Stack.

Every good stacker knows that in order to stack well the hay must be laid fairly on the stack, and not hauled up or shoved up the side of the stack, because such a process deranges the form of it by displacing the outside course. And in order to have a stack settle evenly and true, the hay must not all be pitched on one side of it, but on two opposite sides, or it should be dropped near the center of the stack. When hay is all pitched on a stack from only one side, unless it is dropped in the middle of it, when the stack comes to settle it will be liable to settle least on the side where the hay is pitched on, thus causing the stack to lean so far from a perpendicular that the hay will not turn the rain, but will allow it to enter, and damage much of the hay.

The foregoing considerations will enable us to construct a horse fork for pitching, or to rig

An Elevator for Pitching Hay.

The most common mode of rigging an hay elevator for pitching on a stack is to procure three poles about thirty feet in length, and bore a hole through the small end of all of them, and put an iron bolt through them all, and set them up on the butt ends where the stack is to be made, with the top of the poles over the centre of the stack. Of course this arrangement will bring the foot of one pole on one side of the stack, and the foot of two other poles on the opposite side.

A pulley is then hung at the junction of the top of the poles, which receives a rope, which rope is passed around another pulley attached to a stake driven firmly in the ground. The lower pulley is sometimes attached to the lower end of one of the poles. When this is done, the foot of the pole must be set a few inches in the ground, or it will be liable to be moved when the elevator is in operation. When the "snatch block" or lower pulley

is attached to a stake, if it be placed farther from the centre of the stack than the lower end of the poles are, the lower ends of the poles must be staked down, or the top will be hauled over.

After the stack has been built four or six feet high, a few boards must be placed on the ends, between the stack and the hay that is to be pitched, to keep the forkfulls from hauling against the side of the stack, as they ascend. The tops of the boards should be nailed to a piece of joist fastened from one pole to another; and the lower ends should be set in a trench in the ground, or nailed slightly to a small stick of timber, placed on the ground.

Another Kind of Hay Elevator

Is sometimes rigged by attaching a pulley to the top of a stiff pole in the centre of a stack or to a tree, around which the stack is to be built. When a pole is used for such a purpose, it is set firmly in the ground and braced, and two or three guy ropes extend from the top of the pole to stakes in the ground, at a distance of thirty or forty feet from the stack. These small guy ropes—half an inch in diameter is large enough—will keep the pole steady and erect, when the fork is in operation. A breast work of boards placed on the ends must be made on one side of the stack, as has already been mentioned, to keep the forkfulls from hauling into the side of the stack, as they ascend. Those who have never seen a horse-fork in operation, will understand the forkfull slides up the sides of the boards, and passes over the top of them, and then swings to the centre of the stack.

Hay Elevator with a Crane.

In building a rick fifty or sixty feet long, there could be two poles set erect in the middle of the rick, to the tops of which a pulley might be attached; or there could be one or two sets of long poles set up *over* the rick. Either mode will answer a good purpose. But I think the following contrivance will be most convenient for such a purpose.

Procure a pole about twenty-six or twenty-eight feet long, and about six inches in diameter at the top, and fit an iron band firmly around the small end to keep it from splitting. Bore an inch in the top end about eight inches deep, and drive in an iron pin an inch in diameter, letting it extend out four inches. About seven feet from the top of the pole, shave it round and smooth, for about one foot or more in length. Now, set this pole firmly in the ground, by the side of the stack—say four feet deep. Hang a wooden crane to the top of this pole. The horizontal arm of the crane may be about seven feet long, three by four inches square, at the large end, through which the iron pin in the top of the pole passes, and made of a true taper to the small end, which may be two and a half inches square. The hinge stile of the crane may be three inches square and seven feet long, the top end tenoned into the arm that is on the top of the post. The lower end of the stile has a block hinge bolted to it, and fitted to the pole and greased, so that the crane will turn clear round the pole. A brace under the arm of the crane completes it.

Now, attach a pulley to the end of the arm of the crane, and another to the lower end of the stile, and another near the foot of the pole and let the rope pass over each of these pulleys, with the fork at one end of the rope and a horse at the other end.

Now, drive a load of hay close to one side of the pole and raise a forkful, and when it is rising, let a man on the rick have hold of a small rope which is attached to the end of the arm of the crane, and haul the crane with the forkful over the stack, and drop it where he desires to have it. As the horse is backed up, the fork and crane are brought back over the load, and another forkful is lifted.

In case a farmer did not wish to set a pole in the ground, the lower end could be tenoned into a square frame of timber lying on the ground and braced firmly, and a lot of stone placed on the frame to keep the pole erect. In this case, the pole could be hauled from place to place.

I think I have described these different kinds of riggings, so that there will be no difficulty in making them. Any farther inquiries will be cheerfully answered.

The Way to Hitch the Horse.

When a horse is hitched to the end of a rope in the usual way, he is incessantly stepping out of his traces, which is a very great hindrance. To obviate this difficulty, have a light whiffletree not more than two feet long, and take up the traces short so that the whiffletree will touch his thighs behind, and lash the traces to the breeching. When a horse is hitched in this manner, he may be backed fast or slow, or turned round short, and his feet will never get out of the traces.

In answer to inquiries about horse forks, I will simply state that I have no interest in the manufacture of any forks; but, in case a man should write me, I could get one made to order in this city, that would give the best of satisfaction.

S. EDWARDS TODD.

Auburn, Cayuga Co., N. Y.

STRAWBERRIES IN PHILADELPHIA.

PHILADELPHIA, 6th mo., 11th, 1862.

I attended last evening the monthly exhibition of the Pennsylvania Horticultural Society. The storm raging at the time and throughout the day, reduced the exhibition of fruits and flowers, as well as the attendance. There was a small but excellent collection of strawberries. Among them I observed dishes of the Hooker, the berries of which measured an inch and a half in diameter, and others of different known sorts as large. Downer's Prolific proves valuable here, and the berries have a beautiful appearance—several members informed me that it would probably nearly or quite equal Wilson's Albany for productiveness. Scarlet Magistrate is good, the berries usually about an inch and a fourth in diameter, but I was told that the shortness of the fruit stalk, causing the berries to rest on the ground, was a serious objection—one side of nearly every berry was pale colored, in consequence of lying on the ground. I saw the finest dish of the Peabody I have met with; the berries averaging an inch and a half in diameter. Its unproductiveness, unless very carefully cultivated in stools, condemns it for common culture. The Secretary of the Society however informed me that by the best attention, he had raised at the rate of 4,000 quarts per acre, or 120 bushels, which is about one-third or one-half that of the Wilson. The Fillmore is regarded here as a valuable sort—the berries are borne well up on stout stems, the plant hardy, vigorous, and productive. The berries which I examined averaged over an inch in diameter. The Lady Finger, which in form much resembles Scott's Seedling, but is sometimes much coxcombed, is considerably cultivated. A dish of the Alice Maude was perhaps the finest looking of all, but a variety that will not bear a pint on a square yard, must be rejected. Among several new sorts, the Abington Blush, a seedling of the Wilson, with very light colored flesh, excited considerable attention; but I could not judge of its quality. The Triomphe de Gand, as nearly everywhere, is highly esteemed, although often but moderately productive.

A tropical fruit, fully ripe, known as the *Philodendron*, from the garden of Robert Dundas, composed of small portions or berries on a fleshy receptacle 10 inches long, was quite a novelty. It is juicy, rich, exceedingly delicate, and very high flavored—a little resembling, but greatly superior, to the fully ripe fruit of the Mandrake.

I observed five bunches of the White and Grizzly Frontignan that measured 10½ inches long, and Hamburghs 10 inches.

J. J. T.

SERIOUS ERRORS---STABLING CATTLE.

One of our best agricultural journals publishes a communication containing the following remarks on the subject of keeping domestic animals, and the fodder they are to eat, amidst the fumes of manure:—

In view of the testimony on the subject, I am nearly persuaded that it is better, both for the hay and other forage, for farm stock, and the animals to be fed thereon, to keep them separate. The fumes about a barn, without a cellar even, may be objectionable, and, doubtless are, though ordinarily far less so than where there are manure composting cellars; in order, therefore, to avoid all these objections, may it not be deemed better—yes, is it not better, to build barns to keep the fodder in, or else use caps, and in connection therewith, to build sheds and stables for cattle, horses and sheep? Will not the improvement in the sweetness and palatableness of the forage, over that kept in a barn with stables, where is a large number of animals whose respiration and excrements cannot but taint the hay, grain and roots stored under the same roof, with a large composting manure cellar underneath with filthy swine more or less employed as composters, warrant the economy of keeping them separate? So it seems to me as at present informed.

The writer of the above extract appears to take for granted the following points:—

1. That wherever domestic animals are, the air must be filled with "fumes, from respiration and excrements."
2. That these fumes are so foetid as to spoil any fodder or hay which they reach.
3. That swine are so filthy that they should not be admitted to the decent company of a common barn.
4. That therefore separate buildings should be erected—one for cattle, with the fumes, manure, and "filthy swine," and the other for the fodder.

It is the superficial adoption of such opinions, that has induced so many to regard stabling cattle, or sheltering them otherwise, in winter, as an objectionable practice, and incompatible with cleanliness. If animals must necessarily breathe foetid fumes, and be plastered with manure, if stabled, it is probably better to let them shiver in cold winds, at the risk of losing a good deal of flesh before spring, and consuming 30 per cent. more food—yet we admit it is hard to choose between such evils. It should be laid down as an unalterable rule, 1, that cattle kept in barns should have sufficient labor expended upon them, by littering with straw, frequent cleaning, and a free use of absorbents, connected with *ample ventilation*, to preserve entire cleanliness, and freedom from all "fumes." The fodder saved and the flesh added will amply repay this labor. Secondly, that foul air, that will spoil hay, will seriously injure the delicate texture of the lungs of domestic animals; and that they deserve a pure air as well as the hay. Thirdly, that swine are not essentially filthy animals—they are often driven to become so, by the carelessness and inattention of their owners. Give them a clean and comfortable dwelling, with plenty of dry litter, and they will appreciate and enjoy it, and, what is not to be forgotten, will grow and fatten more rapidly.

If a barn is well constructed and well ventilated, and hay and stable separated by tight partitions and tight floors; and if the inmates receive the care and attention which mere pecuniary profit would demand, none of the evils which have been mentioned could occur. It would be as well for a housewife never to sweep her kitchen nor wash the utensils, and to allow a general accumulation of refuse matter for the whole season, as for a farmer who has built a barn for his cattle, to give them no further at-

tention than food and drink only. The great leading axiom in husbandry, which applies with its fullest force in this instance, is, that *profitable* management requires a constant and full expenditure of care and labor, for a thorough and finished performance of every operation; and that carelessness and neglect is very much like the Indian's rule, "poor pay, poor preach."

[For the Country Gentleman and Cultivator.]

Feeding Sheep for Breeding Stock.

As you open my sheep book, you find the motto written "VIGOR and VITALITY." This with me is the foundation; without it all other valuable points are of little moment in an animal for stock breeding. While it may be an easy matter to follow a standard rule in judging of manufactured and other articles at our Agricultural Exhibitions, no mere tape measure can ever decide on the merits of stock animals. The great mass of lockers-on will probably admire the great size and fatness of some particular animal; a few more wise, perhaps, will see his superior in another animal, because of the great length of his pedigree; but one in a thousand may pass that way with an eye drilled to discover defects, who quickly decides in his own mind that neither animal is what he should be for a stock getter—not because it lacks a printed pedigree or size, or yet many valuable points, but because it may lack the essence of all points necessary to stamp what extra qualities it does possess on its offspring, viz., *Vigor* and *Vitality*.

How often do we find writers describing improved stock, telling us, as one among many valuable qualities, of its sluggish disposition, therefore laying on fat rapidly. I imagine that the breeder who *builds on that foundation* will soon find himself possessed of a stock of animals that are poor feeders and miserable thrivers; and it would be no wonder if it did take three cows to keep one calf in condition. He who looks over his flock, and is pleased with their fatness and high condition—if he *therefore* concludes that his system of feeding is the true one—may not after all be the man that can succeed as a breeder of stock sheep.

Before, then, we can know if a system of feeding is right or wrong, we must know what end is aimed at. Having given some part of my system of management for butcher's lambs, I shall now notice some of the small matters connected with breeding sheep for stock getters. My prominent aim being, as above stated, to secure vigor and vitality, the question arises, how shall I keep my breeding ewes? Is it best to keep them stuffed, pampered, and fat, or just in fair thriving condition? I am not now writing to prove that my system is right, but to add a little to your recent editorial remarks on my management, and give some of the reasons why I manage as I do. I would ask my readers to look at my sheep; I am willing that they should decide about the right or wrong of my management. My plan is to keep my sheep in the open air, except in case of wet weather, believing that while it may take a little more food out in the cold, it does them no permanent injury, but rather good. If I see it giving them a keen appetite, I feel entirely satisfied that all is working well, but the fear of dogs, and deep snows, compel me to put them in yards at night, and sometimes for weeks together through the day, if the snow is very deep. Still I would much prefer to have them wandering over large fields, than confined, even in yards with shelter on the north.

While I prefer not to give breeding ewes any roots or grain before lambing, yet if they are not in good condition and heart, I think it a good plan, attended with no evil consequences, to begin two months before lambing with one gill of oats per day, increasing to a half-pint for two weeks. Still I prefer to have my ewes kept on hay and cornstalks, as they are in plenty high enough condition, without the grain. And while I feed my ewes no roots

before lambing, if they could not get to the ground to get a bite of grass, and had to be confined for some time, I should not object to giving about one or two pounds per day, for the sake of keeping the ewes in condition, but by no means to increase her milk; and this is the point why I object to roots until the lambs are two weeks old. I believe too much milk injures the health of the lambs.

Beginning now with the lambs, I have a different object in view, and must use a different plan from butcher's lambs. If you wish a child to continue healthy, with *good digestive powers*, will you feed it pound-cake? This question answers all I need say about feeding lambs. I wish to keep them growing fair, but not to fatten them. I give no feed until eight months old, and even then very light—say a little wheat bran and oats; but while I object to grain feed, I would not spare green food, and like a little rape ready by October and November—then plenty turnips until February, then sugar beets until June, then grass and clover until rape and turnips again,—giving grain very sparingly unless I should not have plenty of roots. Then I should give grain sufficient to keep them in good growing order.

The above plan refers to the ram lambs, while to the ewe lambs I only give half the allowance of roots. My reason is, the rams need to be in very strong condition for work, say in October—thus being more likely to impress their good qualities on their get; and if not in pretty high condition, they would not get through their work in fair order for wintering well, without too much grain feed. The young ewes in October have none of this work, but on the contrary are growing very fast on grass, and, in general seasons, will continue to do so up to December. As soon, therefore, as grass comes in spring, I turn my ewe lambs out without any more roots, and keep them on poor pasture through the summer, and even then they get in plenty high condition.

Since writing the first half of this article, spring work has come upon us with a rush, so that I was obliged to abandon my plan of treating this subject at length, and have barely glanced over it as above. Commencing with a stock possessed of great vigor, I am willing to stand or fall on my plan of breeding and feeding; yet, being but a learner, I am watching for any better way, and hope sheep breeders will not be backward in criticising my plan.

While it is possible to give exact rules in managing sheep, it cannot be so in BREEDING. The skillful painter so mixes his colors, as to give beauty that no written rule could produce; and so the skillful breeder crosses opposite qualities to produce perfection, that no printed plan, however well followed, could attain. J. C. TAYLOR.

Holmdel, N. J., April, 1862.

[For the Country Gentleman and Cultivator.]

DEFECTIVE HORSES---TRAINING.

The Co. GENT. of April 17, contains an inquiry by D. B. in relation to a mare of his, who has "acquired the habit of *pounding* her knees when driving fast, causing soreness and swelling." I do not catch the true meaning of the term "*pounding*." Does she strike her knees with her hoofs or shoes, or strike her knees together? I do not understand that her manner of "throwing her weight into her feet," (to use a vulgar though expressive phrase,) causes her knees to swell from the concussion. If this is thought to be the case, you will probably find that her feet have inflammation, and this is merely an *extension* of it. The feet generally fail first. If inflammation is present in both feet, as in all likelihood it is, you may have failed to perceive the difference in her gait. Notice the *heat* of her feet after she has been in awhile; wash both in cold water, and see if they *dry about the same time*. Take her shoes off and examine for *corns*, (an indication merely of inflammation, i. e., soreness.) But I do not believe it is this. However, let me speak of *how to cure the inflammation*, and touch lightly upon the other

causes—striking her knees with her hoofs or shoes, or knocking her knees together. Before she gets over the soreness and swelling, you will have time to explain more in full; also, admit us into the treatment adopted, and its results?

This soreness arises from fast driving, so do not adopt that gait until all vestiges have disappeared. The mare must be put upon low diet; hay and wheat bran, I prefer. Wet the bran with *boiling* water; let it stand *covered* until warm, when feed—twelve quarts of bran in three meals. This will have a tendency to open her bowels. Keep a good bedding under her at all times. Some say bedding is injurious. No facts support such an assertion; if any, would like to hear of them. Wash the knees with cold water, and bathe with tincture of arnica. A *loose box*, letting her head free, is preferable to a stall. If you keep her in a stall, give a little exercise in the morning and afternoon. Do not give too much; err on the right side. Stuff the feet with cow manure (for its wetness,) or wet oil-meal—in fact, any thing that will keep them damp; tow, kept in by small sticks inserted cross-wise of the shoes, and kept always wet, is as good as anything. A separate stall, with a box filled with mud, would do quite well; but I would prefer the straw stall and stuffings. Be sure and keep the feet soft however.

Now for the other considerations. Horses often strike their knees with their hoofs, because their legs are formed outside of trotting requirements. If this is the case, we cannot change nature when she has such a foothold. Horses with well-formed legs are apt to cut themselves when urged too *quick*, not *fast*. If he is high acting he is apt to cut when becoming tired. Here the remedy is apparent. Colts are more liable than horses. Good formed and well actioned horses often cut their knees when improperly shod—feet left too *long and wide*. He may become, nothing unusual I can assure you, tender footed, and then he is liable to cut. Again, a great deal depends upon the driver when the horse is at full speed. When he is going at a rapid rate of speed, a tendon may be *strained*, and then the legs and knees swell. Besides these, there are many other causes, and somewhat similar. The above causes often produce *knocking of the knees together*.

The *first thing* to look to, is the condition of the feet. For New-York pavements you do not wish your horse's feet to be in as soft a condition as we do in the country; neither do you need that extreme paring of the inside of the foot, so often met with. Plain shoes for training, according to my notion. If you are wishing to develop the powers of speed in your mare, you must have regular hours for exercise. When you "*speed*" her, do so by "*brushes*," as she is young. Drive every day, but do not "*slam*" her; short "*sprints*" are the only keys to success. I happen to be situated as you are about developing speed in a young mare. I practice what I preach in this respect. My mare likes to "*spirt off*," and it makes her enter into it with determination and energy, whereas if she expected—and they soon learn—a long "*swing*," she would not do near as well for that particular time, nor improve as fast. Speed in the young, and "*stay*" in the older. Drive slowly when you are not "*sending*" her. You cannot make a "*trotter*" and a roadster at the same time. Their motion is different. Their training must be at variance. Plenty of light, fresh air, good solid food, good and careful grooming, and sufficient walking exercise, with frequent "*sprints*" of speed—their length depending upon many collateral considerations—provided all things else are favorable, make trotters.

Rose Hill, N. Y.

ONE WHO HAS TRIED IT.

[For the Country Gentleman and Cultivator.]

MILDEW ON ROSES.

It is said by those who have been troubled with mildew on their roses, that if they are well syringed with lager beer, it is a certain remedy for it. One of the finest collections in the country was saved by two applications of it after all other means failed.

C. B. M.

THE SUMMER DROUTH.

The present state of a considerable portion of the Northern States, suggests some remarks on summer drouths, their effects on different soils, the remedies and preventives within our reach, and their advantages in regard to the destruction of weeds and the amelioration of the soil. There are *two* sides to the picture—we may, after dwelling on the glare of the darker, turn to the more genial phases of the former, and find some consolation.

Seasons of drouth of more or less severity, are of frequent occurrence in our climate. Weeks and even months pass with little or no rain; the scorching glare of the sun drinks up our summer brooks, and turns the fields to dust or brick-like clods, beneath its influence. The growing crops are shrivelled and dwarfed by the heat—if it occurs early, as this year—late planted crops find insufficient moisture for germination. The meadows yield a light product, and under the continued want of rain, pastures are as brown and bare as in the earliest spring-time.

But drouth affects not every soil alike. There are some luxuriant crops, when many fields cry visibly for help from heaven. These invariably occupy the porous friable soil, that has been deeply cultivated and highly manured, or if a hoed crop, one which is frequently and cleanly cultivated. It is well known that one of the most effectual preventives, (if not the only preventive) of the effects of drouth on crops, is a fresh and mellow state of the soil upon which they are growing. This can be attained perfectly but in one way—by thorough and frequent stirring and cultivation—though it can be greatly promoted by a proper preparation of the ground before seeding. If land is deeply plowed and thoroughly pulverized, and at the same time prepared either by the nature of the subsoil or artificial drainage, for the ready passing off of all surplus water, it will remain for a long time in a moist and mellow state. But shallow tilled land, with a retentive subsoil, is always found to become comparatively sterile under the influence of excessive dry weather. A heavy rain falls, completely saturating the mellow portion of the soil; the surplus water cannot sink rapidly away into drains or a porous subsoil, but must pass away by evaporation, and the surface soil is sure to become baked and hard under this slow process. Or a like soil and treatment without rain, soon dries down to the hard-pan, and furnishes its crop little resource for moisture under a drouth.

What, then, is the best method of guarding against the effects of drouth? If the above reasoning is correct, deep culture and frequent stirring of the soil is our best resource. It is true that the evaporation of moisture is the greatest from a light soil, but it is also true that it receives moisture more readily and largely from all the sources which supply it. We find little or no dew upon the beaten path, when the grass at its side sparkles with dew drops in the morning sun. The fresh turned earth receives a much larger supply than that upon which a hard crust has formed; it penetrates much farther; is more perfectly absorbed, and hence passes off with less rapidity. This is true both of light and heavy showers.

To "keep the land free from weeds" is the panacea of the farmer, as it long has been of the gardener. The best product of corn and roots, of fruit and vines, are invariably those which receive frequent, clean and thorough culture. We have observed this fact, particularly in all reports of large corn crops, in every mention of thrifty

and productive orchards, in accounts of the best and most profitable vegetable gardens—all were grown on a mellow, clean, deep soil. The want of rain seemed scarcely felt, while the products of shallow and weedy soils were much reduced in consequence. It is a matter of much importance to a growing plant whether it has its appropriate breadth of soil to itself, or whether weeds surround it, robbing it of the moisture and nourishment which should go to its support. Its roots and leaves should have room—should possess a monopoly of all the benignant influences of nature. A rich, clean and mellow soil is the best prevention of the effects of drouth, as well as the best security for good crops, whatever the character of the weather and the season.

On fertile soils the crops suffer less from drouth for another reason. They start early and vigorously, and spread wide and deep their roots, and send up broad and strong their stems and leaves, so as to take up a much larger supply of moisture, and from more extended sources. A plant with scanty rootlets, only a few inches in length, has far less power to sustain itself without rain than one with numerous roots extending several feet on every side, as is the case with most grains and plants in fertile mellow soils. We often see this illustrated—no farmer can have failed here.

A dry season presents a highly favorably opportunity for destroying weeds of all kinds, either in cultivated fields or pastures. Many of these "pests of the farm" die hard—though pulled or hoed up, they readily take root again in moist weather; indeed we have seen corn thoroughly hoed, as weedy as ever a week later from this cause, when with dry weather it might have been "laid by" with one hoeing. So, too, of cutting thistles, bushes, etc. A season of drouth will well nigh exterminate them if properly improved, with but slight labor. Gardeners prefer a dry season to a wet one for most of their products, as well for their better quality as for the greater ease in working and tending.

Dry weather, in bringing up moisture from the subsoil—a circulation of water the reverse of that which takes place in wet weather—brings up not only moisture, but all that it holds in solution. There are salts of lime and magnesia, of potash and soda, or, indeed, whatever the subsoil may contain. The water on reaching the surface is evaporated, but these mineral constituents remain for the use of future crops. They restore to the surface that which has been used in former years, and thus the drouth serves to restore and keep up the fertility of the cultivated soil, as far as derived from this source, and it is not an unimportant one.

[For the Country Gentleman and Cultivator.]

FRUIT IN IOWA.

We had no frost in May to injure the fruit in this vicinity. Strawberries are now abundant at ten cents. There is about this town 400 to 500 bushels raised this year, to feed 10,000 people with—that is about 10 quarts for each family. The Wilson strawberry takes the lead in size, quality and profit. I have a bed of the Triomphe de Gand, ten days later than the Wilson, which appear to be growing very large, not yet ripe, but not as productive as the former. Apples a fair crop. Grapes are setting full, and the vine looks luxurious and healthy. This country will be well supplied with fruit this year—so it is improving from year to year in health. SUEL FOSTER.

Muscataine, Iowa, June 13.

[For the Country Gentleman and Cultivator.]

COUGH IN HORSES.

MESSRS. EDITORS.—One of your correspondents asks for information respecting cough in horses. I once had the opportunity of observing two or three cases of this disease. I took the trouble to inquire as to where the horses were bred, and how long they had been heated. The result was that a hasty "hacking cough" (precisely similar to the kind spoken of) was traced to a neglected, or, as some people would call it, a badly cured case of strangles, otherwise known as colt glanders or horse distemper. Had the complaint been properly treated in the first place, no hacking cough would have remained. But the fact is, the treatment in such cases, though simple, is too much trouble, and requires too patient attention for many people, although if they could see their own interests more clearly, they might perhaps perceive that diligent attention in the beginning of the disease would produce the most favorable result in the end, even as regards the pecuniary value of the animal. In my humble opinion, derived from experience of cases that have come under my observation, the cough complained of has become a constitutional disease, seeing the horse was attacked with "distemper three years ago, and the hacking cough was left behind; *the horse has not got the heaves yet.*" I may be ignorant of much that I ought to know, but I cannot perceive the necessity of the horse having the heaves at all, if proper attention is paid to him. If proper attention is paid, it is my humble opinion that the cough, though it may not be absolutely cured at once, may be so controlled as that the horse may outgrow it. After the sound doctrine laid down in your paper as to the treatment, it would be unnecessary for me to say more had I not observed in the cases I mention that the disease was seated in the throat at that part commonly called the "throatle," "swallow," or kecker, the part usually squeezed by dealers to try whether a horse's wind is sound or not. This part will be more or less swelled, according as the cough is better or worse. In plain matter of fact, the horse is left with "*chronic sore throat*," which gives the hacking cough. I have seen very good effects produced by fomenting the parts well with warm water, and giving warm bran mash. But in any case I would respectfully recommend that the animal's stomach should not be converted into an apothecary's shop; if drugs are administered at all, let it be a mild diuretic alterative, which any respectable veterinary surgeon would supply. This, with bran mash and chopped straw, would materially relieve, if not entirely cure, the complaint. (The reason why a diuretic alterative is recommended, is one that I should suppose any veterinary surgeon would explain if applied to, as there is an intimate connection in some way with the action of the urinary organs and the organs of the throat, but I am unable to explain, not being skilled in anatomy, and have no work to refer to either, to gain the knowledge.)

I would further remark that horses suffering from this disease have a peculiar way of striking out their heads for the sake of breathing more freely as they travel. To relieve this, use no bearing or check rein, and buckle the throat latch loosely, so as not to pinch the throat. If it is necessary to keep the horse's head in, instead of the bearing rein, use a light strap running from the belly band, the same as a martingale but instead of rings for the reins to pass through, let there be buckles, so as to fasten into each side of the bit.

Shipton, near Danville, Canada East.

RUSTICUS.

[For the Country Gentleman and Cultivator.]

To Kill Lice on Stock of all Kinds.

Take 1 ounce of "*cocculus indicus*," which should be bought of any druggist at from 12 to 15 cents per pound, and steep it in 1 gallon of water, and apply as is recommended for tobacco extract. It will be found quite as

effectual, and much more pleasant to use. I have used it with unvarying success for killing lice on canary birds. Dip them in, keeping the head out, and soak well. It is perfectly safe.

A. B.

[For the Country Gentleman and Cultivator.]

LETTER FROM JOHN JOHNSTON.

NEAR GENEVA, 11th June, 1862.

MESSRS. EDITORS.—May on the whole was an unfavorable month for the farmers in this section; although we had several showers, it was always cold and dry afterwards, and neither grass nor wheat came along as it ought to have done, according to the prospect we had at the beginning of the month; and wheat has come in ear very slowly, and unless we have hot weather, we will have a later harvest than we should have to escape the midge. Last week I made a visit to the Hon. GEORGE GEDDES. I had never been on any of the farms in the neighborhood of Syracuse, and I assure you there are many as good farms there as can be found anywhere, and many of them appear to be very well cultivated; and they keep far more sheep than I expected so near a large city. All I saw were of the Merino breed, and I never saw as many sheep in one neighborhood so good; they are well fed, and first-rate sheep. I saw the wool from a flock recently shorn, that averaged 6½ lbs to the fleece, (washed wool;) it was fine, and in very good order. I saw three of Mr. GEDDES' rams shorn—one a yearling, whose fleece weighed 16½ lbs.; the other two were older, and theirs weighed 16½ and 17½ lbs. These rams were not washed, but were very clean for unwashed wool—in fact, after it was rolled up, unless it had been handled, one would have supposed it washed wool. These rams were Silesian Merinos, which Mr. G. seems to think the best breed of Merinos. Since I left there I have thought they must have been housed since last autumn, else the wool could not have been so clean; but it did not occur to me at the time, or I would have made the enquiry. Mr. G.'s wheat was much about the same as our wheat here; his pastures were luxuriant—far too good in my opinion; for when the sheep wade through grass up to their bellies and farther, I never saw them do well, especially before shearing—their greasy wool gives the grass an unpleasant smell, and they don't thrive on it as they would do if they had been turned out earlier and the pasture kept short. His meadows were excellent. Everything is looking well in that neighborhood; the soil must be equal to any we have in the State.

I was on the farm of our friend E. SHERRILL, Esq., the other day; he will leave his mark behind him as a tiller of the soil. His corn is admirably tilled, none better I ever saw; and every thing he is doing, is done in the best manner. His farm never had the name of being a good one for grain, but I believe the truth is it was never half tilled. Mr. S. has improved it wonderfully in the two years he has owned it.

We have it warm now, and corn grows, but it came up badly on clay soils unless highly manured. Mr. GEDDES makes an immense quantity of manure, but I don't think he appreciates it as much as I do; he seems to think clover and plaster the sheet-anchor of the farmer. I can get plenty of straw with clover and plaster, but I must have dung (I suppose I should say ammonia,) to get a full crop of grain.

JOHN JOHNSTON.

Profitable Farming.

The attention of those farmers who believe that "farming doesn't pay," is called to the experience of Samuel Graves of Hatfield. He owns a farm of 35 acres, and in 1861 he raised ten tons of tobacco, which he sold for \$2,200, sold \$160 worth of tobacco plants, raised 650 bushels of corn, 200 bushels of potatoes, 54 tons of hay, fatted 200 sheep, on which he cleared \$400, and \$65 worth of pork. Besides himself and boy he employed two hands, one through the summer, and the other the year round, at a cost of \$300.—*Northampton Free Press.*

[For the Country Gentleman and Cultivator.]

Best Way for a Young Man to Get a Farm.**Results of Personal Experience.**

MESSRS. EDITORS—Mr. J. W. COLBURN of Vermont, says, in Co. GENT. of March 13, page 178, that "he has read with considerable interest the lengthy communication of F. of Orleans Co., in Co. GENT. of 23d and 30th of Jan. last, pages 59 and 74, describing the best way for an ambitious, energetic young man, starting in life without property, to get a farm, &c." I also read those articles with a good deal of care, but with all due deference to Mr. Colburn, also for F., I beg leave to dissent from their views as expressed in their communications, and take the middle ground, as spoken of in the articles referred to, and shall advocate it, and advise such young men as Mr. Colburn speaks of to adopt that plan in getting a farm.

Let us briefly look at the qualifications mentioned. He is to be ambitious and energetic. Now we suppose Mr. C. means a laudable ambition, such as is becoming any young man to possess, and energy also to persevere under difficulty (if need be;) and in his closing sentence he adds, "What man has done, man may do again." Also "that it requires the determined will, the energetic hand, the unremitted perseverance, and the patient, long enduring application, and almost any object legitimate and honorable in its end can be reached."

Such then are the qualifications, if I rightly understand Mr. C., that the young man wishing a farm must possess, and such Mr. Colburn advises—in order to become the owner of a farm in the shortest possible time, to work out by the month on the farm for a period of from ten to fifteen years, as circumstances may require; and to substantiate his position he quotes the following sentence from F.'s communication in Co. GENT., page 74: "F. gives us an instance of a man that died worth \$10,000 in cash, who made it all but a small legacy by working out, and the interest on his money. Another that is 36 years old, that has between \$3,000 and \$4,000, all made by working, and the accruing interest on his wages. And yet another that saved \$900 in six years." Mr. Colburn then says: "These cases show most conclusively that working out on a farm by a young man starting without means, who is determined to own a farm, is the shortest and surest way to accomplish that praiseworthy and desirable object." Also he adds—"Had either or all of these cases detested working out as many young men do, and got married at the start, and relied upon taking farms upon shares, or upon running in debt for a few acres, think you at the same period in after life they could have shown these results?" Mr. Colburn then answers the question decidedly in the negative, saying—"I tell you they could not, but probably would have seen an old age of destitution and want." The language used by Mr. Colburn is very strong and decided, and perhaps it may be considered presumption in me to gainsay it. Viewing it in the light of my own experience and observation, I consider his views, as expressed in the answer quoted, as containing errors, and calculated to mislead those whom he desires to benefit by the advice given in his letter from which I have taken the extracts already quoted, as published in Co. GENT. of March 13th; and relying on Mr. Colburn's forbearance towards one who may differ from him in opinion, will briefly give my views on the subject.

F. does not say that the men mentioned made the sums credited to them by working out on a farm as farm hands, although Mr. Colburn assumes as much, and the price mentioned by F. in his first letter, when he quotes from Mr. Colburn's previous writing, at \$15 per month for the year, is higher than the average in this county for the past 20 years. I think \$150 per year is full an average for the best hands for the time mentioned; some of the time above, and some below that price, some not getting that price; but we are talking of the ambitious and energetic

young man who is determined to become the owner of a farm in the shortest possible time, who has to earn it by his own labor.

We see from what has been written by F., and also by Mr. Colburn, that from 100 to 150 dollars per year can be saved by such men under the most favorable circumstances; probably \$120 would be more than an average in the cases that have fallen under their observation, and in this vicinity it would be under that estimate.

Now we will look at the other side of the picture, keeping in view in the meantime the qualifications that the young man must possess. We will suppose him to be 21 years of age, with good health, and all the requisites mentioned by Mr. C., and that he has formed associations with some young lady of his acquaintance, who also possesses the same qualifications, but she also is without means to purchase a farm, although that is the object of their ambition, to attain which they are ready and willing to unite their interests in the realities of wedded life, and commence in earnest to acquire the desired object. In the light that Mr. C. views it, they will probably fail; but viewing it in the position that I take, they will succeed, and much sooner than they would if both worked for wages, having the same end in view, viz., a good farm.

Such a couple can easily secure a good farm on shares from a good landlord in this State, and probably in most of the States of the Union, and instead of saving \$100 to \$150 per year, can, with the blessings of Providence, lay by from \$300 to \$500 per year, with more advantage on their side than to remain single. For instance, if they remain single, and are sick, all income is stopped, while if either is sick when married, and on a farm, crops and animals are still growing, and there is one (if only one is sick) to look to the interests of both. Besides how much more congenial to human nature to have a companion to share with each other our joys and sorrows, either in prosperity or adversity. Also what young lady of the qualifications mentioned would not prefer to join her destiny with a young man of like qualifications at once, and begin the great battle of life in earnest, and having conquered, as they surely will, all obstacles at the age of 30 or 40 years, look back with pleasure upon their commencement and struggle for a farm, and feel that with their united efforts, with the blessing of a kind and heavenly Father resting upon them, they have succeeded beyond their most sanguine expectations. Perhaps too at that age sons and daughters may have grown up around their fireside to gladden their hearts, who will soon go forth in the wide world to conquer the obstacles, either real or imaginary, that may arise in their path. Think you there would have been as much enjoyment and genuine home feeling had they remained single in the meantime? I think not; I have in my memory at this time numerous instances, such as I have mentioned, when at less than 50 years of age persons that were married in early life, and have worked farms upon shares, have made their thousands and purchased farms of their own, and are still in the prime of life—also some that have told the writer of this that they did not want to own a farm, as they could make more money in working land belonging to others than to be the owners themselves.

Such have been my observations while engaged in working out the problem for myself, for at 18 years of age my prospects in regard to property were dark enough (my father having died 10 years previous without property; consequently myself and mother were left to rely upon our own exertions for a livelihood.) For three years I worked out on a farm for wages, that is from the time I was 18 years old till I was 21. I will not say that I had the qualifications mentioned by Mr. Colburn, but I may say that I saved what I earned, and tried to do my best for my employer. At the age of 21 years I made arrangements to take a farm with a view of purchasing. Soon after I married a young lady that knew my circumstances, and that the farm had to be earned if we ever wanted one. We commenced in earnest. Before we were 30 years of age the desired object was attained, and we were better off in dollars and cents than the cases cited by F., which

Mr. C. quotes; besides we had been at home all the time while we were engaged in paying for it.

As for the expenses absorbing all the income in working a farm upon shares, as mentioned by Mr. C., that has not been the case with those of my acquaintance. The expenses in such cases with such a couple will be light, and they will save from \$3 to \$5 in such a situation where but \$1 would have been saved by the working out system.

Now I do not deny that many young persons will fail to accomplish the results I have stated; but such would fail if single, not having the required qualifications. I could mention cases where, when single, not a dollar was saved, when as soon as the same young men were married their earnings were saved and a competence was the result in a short time.

The expenses of a family are never so light as at the commencement, and any young woman with the qualifications to match the young man, as given by Mr. C., will, instead of adding to his burthens, lighten them in very many ways, which I need not mention at this time; besides he will doubtless have the blessings bestowed on him, designed by his Creator when he said "it is not good for man to be alone," who also created "an helpmeet for him." There is no doubt but the same injunction is now resting on the human family as in the earliest stages of the world, and we shall do no wrong by heeding the injunction.

In conclusion I would advise all such young men as mentioned by Mr. Colburn, and all others that think they have the qualifications mentioned, that the sooner they get married after they arrive at the age of 21 years, and a suitable situation offers to take a desirable farm, the sooner they will become the owners of such a farm for themselves; and that instead of a young woman being an encumbrance, as Mr. C. intimates, she will be a real help, and they will save from their united earnings in the ratio I have mentioned; besides she will be a sharer in his joys, and grief if he has any, which he doubtless will, as trials are the common lot of humanity. She will also cheer him on in all his successes, looking at the object to be attained on its brightest side, thus proving most conclusively her ability to perform her part in the task they have allotted themselves—which, with God's blessing, they will surely accomplish. JONATHAN TALCOTT. *Rome, March 20.*

[For the Country Gentleman and Cultivator.]

Removing Extra Teats from Cows.

I read recently an article on extra teats upon cows being removed by twisting a wire tight around the teat. The circulation was thus stopped, and in two or three weeks the teat dropped off—which I think must cause the cow considerable pain. The practice in some parts of England, is to examine the calf soon after it is dropped, and if there is more teats than usual, take a common pair of house shears and clip off the end of the extra one. This causes but little pain, and will be well in two or three days. They there consider these extras, if left on, to have a tendency to crowd the useful teats closer together, and spoil the shape of the bag.

H. H. S.

[For the Cultivator and Country Gentleman]

How to Prepare Seed Corn to Protect it from the Depredations of Crows.

Take half a bushel and put it in a basket—pour half a pail of cold water over it, or sufficient to wet it. Then remove it to a tub, or some other vessel that will hold double the quantity—put on about one gill of secesh tar, stir it with a stick till it becomes coated—then put on plaster sufficient to dry it off, rubbing it with your hands to separate it ready for planting, and according to my experience of some ten years, you will have no need of scarecrows.

ALBERT VAN VOAST.

Pond Grove, Schenectady, N. Y.

WHITEWASHING SHINGLES.

Fresh or caustic lime, applied during the heat of summer, and after the wood has become thoroughly dried, enters the pores, and tends strongly to prevent decay. We have recently examined a board fence, which had been whitewashed in successive coats about 18 years ago. The boards were hard and sound, and had not become covered with moss, as was the case with another fence near, built at the same time. There is no doubt that a great advantage would result from whitewashing shingles before laying them. We have on a former occasion, given some instances of the durability thus imparted to them. A late number of the Boston Cultivator gives some additional examples. J. Mears of South Abington, performed the experiment in substance as follows:—He procured a vat, (a lime vat at a tannery does well,) and applied salt with a small portion of potash to the lime, and immersed the shingles for four hours. The wash was afterwards brushed over the shingles when laid. This made a fire-proof roof on a blacksmith shop, now eleven years. Silas Brown, another correspondent, says that 25 years ago, he dipped shingles in a large kettle of lime wash to which salt had been added, and the whole kept boiling. A few shingles were dipped in all over at a time, long enough to soak them well, and then thrown aside to dry. In a short time all the shingles were thus prepared. Although what are termed "sap shingles," they have now lasted 25 years, "and may do so for years to come." Several experiments of a similar character have been made since, with very successful results.

Recipes for Hard and Soft Soap.

A correspondent in the *Germantown Telegraph* offers the following recipe as one to be perfectly relied on:

Take ten pounds of soda ash, and dissolve it in twenty gallons of soft water, with twelve pounds of fresh lime and three-fourths of a pound of rosin, by boiling them all half an hour, stirring the while to keep them from setting or burning; then pour all the contents into a tub to settle, washing your kettle clean. After these contents have settled, take the clear water that comes on the top and put it in the kettle; now hunt up all your fat and skins till you get about twenty-three pounds—if clear fat not quite so much—put over the fire to boil till all the fat is eaten up; perhaps it will take two hours, or not nearly so long; then take fine salt to divide, and add salt till the hard soap comes on the top. It will at first look like froth, and the waste will look very dark in the bottom of the kettle. Pour all out in a tub. I forgot to say, fill up your tub with cold water after taking off the first clear lye, ready to boil your soap-froth with the second time; put two good bucketsfull of this clear lye in the kettle, then with an iron ladle take all this soap froth off the top of the tub and put it in with these two buckets of lye-water, to boil again a few minutes, to make your hard soap clear and nice, adding salt till it separates well. Then pour all out in a tub, to remain undisturbed over night. In the morning you will have over thirty pounds of as nice white soap as you will wish, for either washing or toilet use, which will not chap the hands at any time. Again, if you would wish a half barrel of nice white soft soap, fill up this said lime tub again with cold water till it settles, then take the hard soap that sticks to the kettle and the pitcher that you dip out with, and three or four ladles full of your hard soap, with two pitchers full of this lye-water, and let it boil a few minutes till it looks like soap, then fill up your kettle nearly full of the lye-water, and let boil a few minutes, then pour it out into a vessel, and you will be much pleased with the result of your labor. This soft soap will be thick and solid, and it is very nice for boiling clothes or washing, as it makes a very nice froth.

In order to have plenty of soap fat, you must begin at the beginning to save all the skins of meat, and all the fat scraps that come from your table, which, in warm weather, should be put in some of this clear lye until you get enough to make some soap. By this course, in an ordinary family, you will always have enough soap without buying.

The Annual Exhibition of the Provincial Agricultural Society of Canada East, for this year, is to be held at Sherbrooke on the 17th, 18th and 19th of Sept.

[For the Country Gentleman and Cultivator.]

DESIGN FOR A SMALL GATE.

A neat and tasty entrance gate is a most desirable ornament to a country place. We say *ornament*, because a good gate is as much an object of beauty and attractiveness as almost any feature of the premises; and certainly no one thing gives such a repulsive and forbidding aspect to a yard or home as a miserable, dilapidated gate. Let those readers of the *CO. GENT.*, who have it at hand, turn to page 126, vol. II, of *RURAL AFFAIRS*, and notice the contrast in the gates represented, and they will at once see that the *gate*, is, to a great extent, the index of the dwelling and the social life within its walls. A neat entrance gate gives evidence of refinement, good taste and contentment; and on the contrary, a shattered off-at-the-hinges one, is a sure sign of poor management without and unhappiness within.



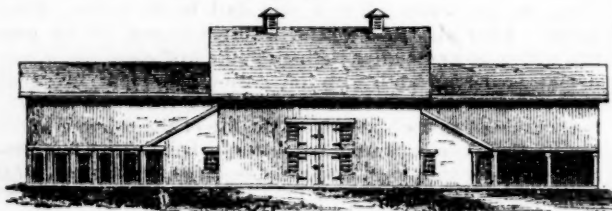
The accompanying illustration is designed to show a very neat and desirable entrance gate for foot paths to front yards which come near the highway.

Upon the grounds of E. P. PRENTICE, Esq., at Mount Hope, near Albany, N. Y., there are several gates differing in some particulars, but essentially like the accompanying engraving. I remember the names of "Jessie Cottage," "Hope Cottage," and "Swiss Home," as some of the names upon the entrance gates of the residences at Mount Hope, as I noticed them during some of my summer walks to "The Abbey." I was struck with their neat appearance, and hope many such gates will be erected throughout our land the present season.

The gate is built of wood. The letters forming the name to be placed in the gate, are also made of pieces of wood one inch square, and cut into the desired lengths. In this way any letter and name can be formed with but little difficulty. If the owner chooses, his own name can be placed in the gate instead of the name of his residence, although the latter is preferable.

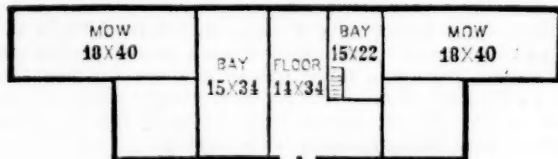
S. L. B.

Brookdale Farm, Maine.



DESCRIPTION OF A BARN.

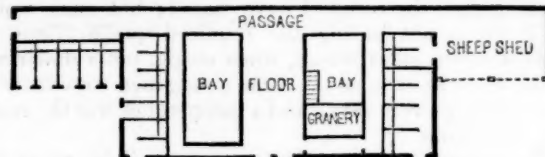
Our correspondent, L. B. CARROLL of Bangall, Dutchess county, sends the accompanying design of a barn built by him a year ago last summer. He does not inform us of its cost,—an item of importance to all farmers who erect buildings,—but we suppose it to be about \$1,100 or \$1,200, if well built of rough exterior boards, or \$1,500 if planed and painted.



FLOOR ABOVE BASEMENT.

It is a grain, horse, cattle, and sheep barn combined. The main building is 34 by 44 feet, the wings each 18 by 40 feet, with a leanto in front of each 16 by 16. The

posts are 13 feet above basement. The basement is 7 feet in the clear. The bays extend down to the basement floor. It is so arranged that the feed from the "mows" as well as from the "bays," is thrown directly into the feeding-space in front of the stalls on each side of the barn; the upper floor being kept for threshing. The grain, when cleaned, is let directly into the granary below.



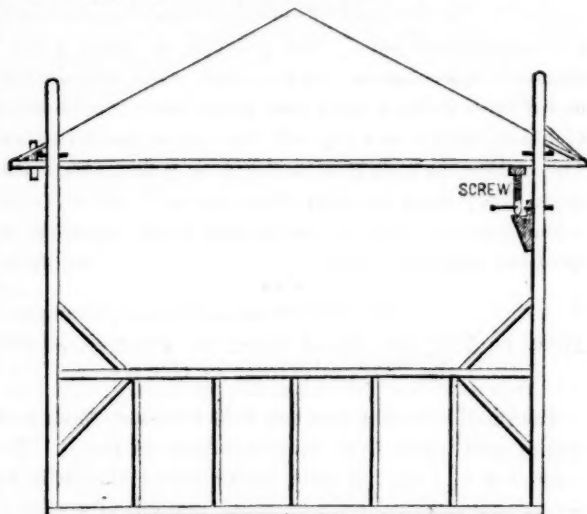
BASEMENT FLOOR.

DIMENSIONS.—The passage in front of the stalls of the left wing is 6½ feet wide, the manger 2½ feet wide, the left stall 6 feet, and the four others 4½ feet. At the end of this row of stalls, and at right angles are five each 4 feet wide, and two ox-stalls at the corner, each 4½ feet wide. The feeding passage in front of these is 4 feet wide. The left bay is 15 by 25 feet—the floor 14 by 34; the right bay 13 by 15—the granary 12 by 15. The horse stalls on the right are each 5 feet wide, except the two nearest the sheep shed, which are 4½ feet. The open shed for sheep is 18 by 24 feet. The passage in the rear of the bays and floor is 5 feet, including sill.

[For the Country Gentleman and Cultivator.]

CONSTRUCTION OF HAY BARRACKS.

The old fashioned barrack, as it is called, is built twenty feet square. Four posts of durable timber, twenty-two feet long, four feet to be inserted in the ground. The stick should be sufficiently large to square eight inches—the corners hewn off, making it partly octagon in shape—one and a half inch holes should be bored through the corners of each of these posts, one foot apart, for the bolts that support the roof. They should be made of one and a half inch iron, one foot in length, the outer four inches to be squared and turned up one inch, on which is laid a piece of joist, three feet long, to support the roof. The roof should run to a point from each side, and may be covered with shingle, tin, or thatched with straw.



There are four plates framed together, and braced. The posts pass up through the roof on the inside corners of the plates. The roof is elevated and lowered with a small screw of wood or iron, about two feet long. A wooden screw three inches in diameter will answer. This is used on the inside of the post. One man can raise and



LEGHORN FOWLS.

These fowls derive their name from the port of exportation, but we have no doubt they came originally from Spain. Dixon says, "the Spanish breed is, in all probability, of ancient and remote origin." In North Devon they are called "Minorcas;" others call them "Portugal" fowls. In Cornwall they go by the name of "Andalusian," but neither term removes them far from their old established location, if not their original home.

Dixon also says, "In England there are two varieties of Spanish fowl, the black and the grey, or speckled, the latter being of a slaty grey, with white legs." In Spain there must be many varieties, as in an importation in 1847 it is said "there were speckled, black and white, and pure white and grey, in shape and carriage exactly like the black Spanish, only wanting the white cheek patches."

On a recent visit to the residence of Mr. William Simpson, Mott Haven, we were shown by his son, Wm. Simpson, jr., a small lot of what he termed Leghorn fowls, which, in style and figure, are well represented in the portraits at the head of this article. There were two cocks and several hens with pure white plumage, and a few hens of a gray or Dominique color. The two cocks are white, with large, single, upright, deeply serrated combs of the most brilliant scarlet, with large long wattles of a proportionate size. The hens resemble the black Spanish fowls in form and general appearance, with a large serrated comb falling over on one side. This mark of contrast of white and red make the head of the Leghorn cocks as handsome as any other variety, and can hardly fail to be a satisfactory and desirable every day fowl. They are, both cocks and hens, of less size than the popular white face black Spanish. As layers they are esteemed fully equal, if not superior, to any of the best egg-producing,

non-sitting fowls, and are considered a most valuable as well as beautiful addition to our poultry yards.

We have been informed that there are quite a number in this neighborhood, which some of the dealers in the city have sold for white Spanish.

In the yard of a gentleman who has some of the finest and purest white-face black Spanish fowls, we noticed a perfectly white Spanish hen, possessing all the characteristics of the family. He said she was hatched from a clutch of eggs produced by his imported prize hens. In her first feathering he tells us a few patches of black feathers appeared on the after and under part of the body. Her legs and bill slaty blue. On her second month the black feathers disappeared, and were replaced by pure white. But the most singular thing of all was the change of color in the bill and legs, which happened after the second month. At first it was noticed in the legs as gradually fading into white; then the bill followed in the same way, when they both became white, face, ear-lobes, and all. This we believe to be merely a freak or sport of the white-face black Spanish breed, as all her produce are true in color and characteristics of the family.

C. N. BEMENT

[For the Country Gentleman and Cultivator.]

REMEDY FOR LICE ON FOWLS.

"A READER," page 352, inquires what will kill hen lice. I can tell him. Scatter sassafras bark, in small pieces, about the nests, and get sassafras poles for the hens to roost upon. The bark of this wood is fatal to this troublesome vermin. Drop one of them upon a piece of it, and it will die almost as soon as if it had been dropped upon hot iron.

My chicken house was overrun with lice. I tried the above remedy and have seen none since. My neighbor was similarly afflicted, and similarly relieved.

N. SARGENT.

Washington, D. C.

lower the roof if it is done as fast as the hay is put in or taken out. Raise each corner of the roof one foot at a time, going regularly around the barrack. The roof will not be likely to blow off, if the above directions are followed in building. The posts, as far as they enter the ground, may be left the full size of the stick.

The best way to build a barrack, is with sills and girts seven feet from the sills, and braced. You can fill it from the ground or hay poles on the girts, and have shelter under for sheep or cattle. I make a rough sketch of a frame barrack, side view, which is given above.

Millerton.

J. D. KERLEY.

[For the Country Gentleman and Cultivator.]

WINTERING CATTLE CHEAPLY.

MESSRS. TUCKER & SON—I have read with a good deal of interest during the past winter, various articles in your valuable journal, on the subject of cornstalks—as to their value for fodder, and as to whether it "pays" to cut them

or not. As practice is at all times better than theory, I would like to state for the benefit of those who are non-believers in the practice of cutting stalks, a fact of which I am cognizant. A few days since, I saw the cattle on the farm belonging to one of my neighbors—fourteen head in all—and in as good order as any one, even our old friend J. J., near Geneva, could wish them to be—in fact some of them would pass for beef with some people—and all kept since fall up to the 1st of April, on four loads of stalks, cut and crushed by one of Hickox's stalk-cutters, in a short time by steam power. This, wet up with fifty dollars worth of bran, bought in New-York at last summer's prices, constituted their entire feed during the whole time. By this means all the grain and straw has been saved for other purposes—perhaps to be exchanged into what your venerable correspondent calls "fire-fanged" stuff, but which we term York manure—and profitable to purchase even at that.

Perhaps I ought to state that there were four or five yearlings among the stock. The rest were cows and oxen.

LONG ISLAND.

[For the Country Gentleman and Cultivator.]

Manufacture of Sorghum Syrup and Sugar.

MESSRS. TUCKER & SON—I send a sample of Sorghum Sugar, which was obtained by dripping some very fair syrup through a coarse bag, a few weeks since. We have made some, four seasons, and find that it is necessary, to make good syrup, that the juice should be cleared before the boiling commences, and that after clearing it should be boiled rapidly in a thin sheet. Our first plan was to fill galvanized iron pans four or five inches deep, and heat the juice to the boiling point, and let it stand without boiling a short time for the scum to rise, and then boil down quickly, and keep skimming off all the green scum as it rose.

Last season we had a pan, shaped like the letter L., the long arm six feet by two, and the short arm two feet square. The flue was under the long arm, so as to keep the juice boiling the whole length, but the short arm being off the fire, the juice would be at the boiling point, but would not boil in it. The juice flowed into the short arm through a spigot, to regulate the quantity, and the clarified juice was drawn off at the farthest corner of the pan from where it entered, into the finishing-pan, which was along side on a separate flue. The juice was kept about an inch deep in the clearing-pan, and by flowing in a small stream into the hot juice, the feculent matters contained in it are instantly separated from it and float on the surface, while the higher level of the juice in the main part of the pan, caused by the ebullition, confines the scum in the quiet corner, where it is readily removed.

Our mode of skimming is with a flat board, with a handle on the back. On pressing it down on the scum, it adheres to it, and is scraped off with a straight-edge.

The clarified juice was boiled down in the finishing-pan, in as thin a sheet as we could manage.

Nearly all the sorghum sugar I have seen, has had more or less of a gummy character. The specimen sent is nearly if not quite free from it. The only thing used to clear it was a small quantity of bisulphite of lime. BELMONT Co. Ohio.

[For the Country Gentleman and Cultivator.]

Personal Experience in Earning a Farm.

Having read in the COUNTRY GENTLEMAN several ways for a young man desirous of obtaining a livelihood by farming to do, I thought perhaps a few ideas I might suggest would not be out of the way. Although young and inexperienced myself, in the ways of working and by the means of which a farm is obtained, I have often heard my father speak of his experience, some of which I will briefly relate. At fifteen years his mind was fully made up to be a farmer. To that he devoted his energies, and boy though he was, was fully assured that he would never have any other vocation. At eighteen he bid adieu to father and mother, and started with nothing but an axe, which was all the kind parent could give but his blessing, and a piece of bread and cheese from the thoughtful mother. He left the parental homestead, traveled thirty miles, there found employment, and from that day to this never has known want. For the next five years he labored partly by the month and also by working farms on shares. In those days when working a farm on shares, you boarded with the family, including washing, and had one third of the profit. In the next five years he laid up \$500—was then married, bought a small farm for \$750, paid \$250 down, with five years to pay the balance. He worked it eight years, then sold, and was worth at that time \$2,100. Worked a farm on shares for two years—was then worth \$3,100. Then bought a farm for \$4,500, having it so arranged that the payments would be made from the grain and meat raised on the farm. When that

was paid for, sold again and bought another for \$8,200. By improving in fencing and building, the farm is now worth \$13,000. Many young men, who commenced with nothing, have now good homes, surrounded with all the comforts of life. Working a farm on shares, he thinks is quite as profitable for a young man as working by the month. A FARMER'S SON. Lockport, N. Y.

[For the Country Gentleman and Cultivator.]

THE BLUE GRAPE BEETLE.

MESSRS. EDITORS—In your issue of the 29th ult., Mr. SCHUYLER WORDEN makes some inquiries in relation to a small "green" bug that destroys his grape buds. This bug is an old acquaintance of mine, having several times almost destroyed my crop of grapes; this season they have not done as much damage as for several years past, and my vineyard now promises an abundant yield.

The insect is what is called the Blue Grape Beetle, and if Mr. Worden will examine the Rural New-Yorker of the 18th May, 1861, he will there find a full description of it. The only *effectual* remedy that I know of is the pinching process. I have tried soft soap and whale oil soap, but could see no good in either. As soon as the vines dried after washing, the bugs would go on with their work.

I think Mr. Worden is mistaken as to the place of deposit of the eggs of this insect. I have this spring in several instances found inside the bud, perforated by the bug in each case, two small sprightly worms of a whitish color, which I believe is the larvæ of this beetle, and that the object of the bug in perforating the bud, is to have a place of deposit, for its eggs, when hatched feed upon the succulent parts of the bud until they have eaten their way out; the worm then passes into the ground, where it remains till the warm weather of the next spring changes it into the beetle, ready to go through the process of the year before. I know this is not the theory of writers upon this beetle, yet I believe a careful examination of its habits will show it to be true, and that the slug upon the grape leaf belongs to a different family of insects.

A writer in the Gardener's Monthly for January last, says that the slug not only feeds upon the tender part of the leaf, but also destroys the unopened blossom. In this I believe he is in error, and that if anything feeds upon the unopened blossoms, it is something else than the larvæ of the grape beetle. I have never found anything disturbing my vines in this way, (and I keep close watch of them,) unless it is the cut worm, which I have known to crawl up the vine and cut off the nearest cluster.

I hope some one well versed in *bugology* will carefully study the habits of this beetle, and give us the benefit of his researches.

J. LARROWE.

Hammondsport, June 2d, 1863.

HOW TO TAN SKINS.

Two correspondents of the N. E. Farmer give the following directions:

1. Take two parts of saltpetre and one of alum; pulverize finely, mix them and sprinkle evenly over the flesh side of the skin; then roll the skin tightly together, and let it remain a few days, according to the weather, then scrape the skin till it is soft and pliable. I have tanned skins in this way so that they would be as soft and white as buckskins.

2. "A reader" wishes to know the mode of tanning coon and fox skins with the fur on. I will give him my mode of operation. If the skin is green from the body, scrape all the flesh from it, then pulverize equal parts of saltpetre and alum and cover the flesh part of the skin with it; put the flesh in such a manner as to hold the brine when dissolved, then lay it away in a cool place—say the cellar—and let it lay four or six days; then cover the flesh part with soft soap and wash off clean with water. Dry in the shade, roll and pull occasionally while drying; then roll and pull until soft and pliable.

[For the Country Gentleman and Cultivator.]

THE PRODUCTION OF BEES.

The Author of Nature has so established his immutable laws of reproduction by the semen of the male and female blended together, as to form the embryo which contains all of the elements of a perfect animal of its kind, (and in no other way,) possessing life, physiology, and all instinctive propensities. The Creator made the semen of the drone bees to retain its vitality for a long time after being given off by the drone for productive purposes. It is semen, commonly called jelly, that fecundates the worker larvæ and the embryo ovary of the immature queens, and occasionally the embryo ovary of the fertile workers, thus forming the elements of a perfect drone only. The next thing to be done by the laws of Nature, is to change the drones' eggs that would have produced drones so that they will produce perfect workers. Now it is well known that semen is conveyed by the drones to the spermatheca of the queen in sufficient quantity to fecundate for life a great proportion of her eggs on the way out, and such eggs produce the workers only. The reader will bear in mind that it is admitted that semen, when blended with the eggs, contains all the elements of a perfect worker, which is distinct from the drones, differing in physiology and instinctive propensities, made so by the immutable laws of reproduction by semen given to the eggs by their queen.

The next thing to be considered is in what way the perfect queen is produced, which is a distinct bee in her physiology and instinctive propensities from the drone or worker. To produce a queen the workers take semen that is given off by the drones and convey it to the royal cells for the purpose of fecundating the workers' larvæ, and the larvæ so infused with semen possesses all the elements of a perfect queen. Without blending of semen with the worker larvæ no change can be made in the physiology, organism or instinctive propensities of the queen or worker. All this takes place in the transition from the egg or drone, or the worker larvæ, to the queen. The life of the queen is extended to five times the length of the worker or drone, and possesses much greater tenacity. Can we suppose that this can be effected by a *vegetable compound*, as German theories would have it? It is ascertained in physiology that semen is a secretion in the glands of the male and female of the animal and vegetable kingdom, and must be blended together before organized life can be produced in animals or insects.

Prof. Van Siebolt, Prof. Luckart, and others, have labored much to bring proof that the bee, with many other kinds of insects, are produced by parthenogenesis. I think it impossible; they may exist in insects of the lowest order as the male and female exist for a time in the hermaphrodite state, like many plants that are hermaphrodite, producing the male and female pollen. For illustration take the pistillate strawberry plant, when by itself at first it will produce a few berries, being the effect of the staminate pollen received by their progenitors, which when used up they will become barren for the want of staminate pollen.

Prof. Van Siebolt classifies together the bee, butterfly, miller, and other insects which may be brought into existence imperfectly by parthenogenesis. I would take the butterfly, which has two distinct existences and organisms—first the worm, second the perfect insect. The Author of Nature has so arranged their reproduction that the fertilized eggs bring forth the worm, which, by food, is enabled to secrete semen and other substances necessary to form a perfect insect. It then returns to an egg form, and is fertilized with the accumulation of semen and other substances. It then comes forth a perfect insect, and after copulation the female is fully prepared for laying fertile eggs by the additional secretion of semen in the worm state, which causes the perfect insect and may give productive strength to the next generation by semen secreted in the worm state; but it would be imperfect, producing females only, and finally become barren like the strawberry plants.

The male's semen or pollen is the sole cause of perfect reproduction; but the Author of Nature has made a law for the bee, that by semen to fecundate the ovary, egg, and larvæ, to cause three perfect and distinct kinds of bees, differing in their organism, number and propensities, having scarcely any analogy to the insects before mentioned, which consist of male and female only, of nearly equal sexes, generated in the egg and worm state. The three kinds of bees

require three distinct secretions, in part, in the worm state, to give the particular elements of each—first, to form the drone; second, to form the worker, and third, to form the queen; and each may be hybridized by the semen of the opposite drones. Yet man has the prerogative given to him by the Author of Nature, to improve the animal and vegetable kingdom, and make them more useful to him. He can improve the hybrids even, by reason that some of them having some stronger traits of character resembling the father or mother, they can by them be improved. It is so with the bee, and taking advantage of that trait, by careful breeding he can bring out an Italian race that is better marked than those found in a state of nature.

Now is the time to test the question of reproduction of the drone and queen, by hybridizing with the Italian bee, which principle lies at the foundation of the science of bee-culture, which is not intelligently answered by the German theories to the satisfaction of most bee-keepers. I received letters the past winter from S. B. PARSONS, M. QUINBY, Prof. KIRTLAND and others, they being engaged in disseminating the Italian queens, and as they supposed their purity was not affected by rearing Italian queens with black workers and drones; but they have mostly ascertained that queens so reared in their metamorphose from the egg or larvæ to a perfect queen, would become hybridized in some way that they did not fully understand. Accordingly they have come to the conclusion that pure Italian queens could not be reared without employing pure Italian queens, drones, and workers. These and other kindred questions, it is hoped, will show the cause of the queen being hybrid by transition when reared by opposite kinds, and will make the subjects of investigation, that the rudiments of the science of bee-culture may be made plain, and what is now considered mysterious, by investigation of the laws of nature in reference to the reproduction of the honey bee, may be as clearly understood as the reproduction of other insects or animals.

Henrietta, May, 1862.

ELIHU KIRBY.

[For the Country Gentleman and Cultivator.]

Poor Man's Hard Soap.

Put in an iron kettle 5 lbs. unslacked lime, 5 lbs. salsoda, 3 gallons soft water; let it soak one night; in the morning pour off the water; then add to the water 3½ lbs. of grease; boil till thick; turn in a pan to cool; when cool cut in bars.

Orange Co.

E. C. A.

[For the Country Gentleman and Cultivator.]

FOR CHAPPED HANDS.

Wash the hands, and, without using the towel, apply a small quantity of honey and rub it in well. Use once a day, and it will make the hands very soft, and cure as well as prevent chapped hands.

Apply it in the same manner to a cow's teats.

A. B.

RHUBARB SYRUP.

The aperient qualities of green rhubarb, and its conduciveness to health being now so well known, its usefulness does not admit of a doubt; but allow me to remark it is best used in the form of a syrup, eaten with plain bread, as are all cooked fruits; and not with pastry, especially by invalid persons who have bilious constitutions. Pastry is like strong drink—it only serves to indulge the appetite, rather than to impart to it any real good, causing secretions in the stomach beyond their natural order. To make rhubarb syrup is simply to cut in small pieces, simmer it over a slow fire one hour with a very little water; or it may be baked in a jar, then strain it and add sugar to suit the palate. When it is young it is like apples, unnecessary to be peeled. If sweetened with the best of sugar (loaf is the best,) it will, if preserved air-tight, and set in a cool place, keep good for many months, and will be found to be pleasant and refreshing at all times and seasons.—*Gardener's Chronicle*.

WISCONSIN AGRICULTURAL AND MECHANICAL SOCIETY.—

This Association will hold its next annual fair at Milwaukee, commencing on the second Monday in September. In character it is intended to resemble usual State Fairs, and will include a horse show and trial of speed. Premium lists are now ready, and may be obtained by addressing Mark Miller, Secretary, at Milwaukee, Wis.

[For the Country Gentleman and Cultivator.]

CUTTING STALKS---DOES IT PAY?

This question has been long in debate; how shall it be decided? So far as I recollect, "Old Hurricane" started the breeze, or at least excited it to new violence about one year ago, since which time it has been in agitation with little or no abatement. Sometimes this, and sometimes that end of the beam has been up, as mite after mite has been cast into the opposing scales. But so far the balance seems about as at the beginning. Some prefer cutting stalks before feeding, because, with the use of meal or bran, their cattle make clean work of them; and some, because the parts left are not in the way in the manure. Now, I must say frankly, that the latter is with me the cause which weighs, for it must be confessed that it is anything but agreeable to have a fork full of manure held down by sundry cords from three to five feet in length, which when they give way, come with a flop into the face or around the ears. And such things, stalks in the midst of manure are wont to do. Besides, a considerable "sprinkling" of these on the land are not as convenient to plow or drag amongst as the uninitiated might be disposed to allow. As to cattle making cleaner work of cut than uncut stalks, my observation and experience do not affirm. When a lad I used to be sent to feed the stock from uncut stalks, and I always noticed that some of them would remain uneaten, whether fed in yard or stall. After beginning practice for myself with one cow, I used to read articles extolling cut over uncut feed, and especially in regard to cornstalks, as cattle would thereby be induced to eat them up clean. I therefore procured a machine, and put my bright, well-cured stalks through it, not harboring a doubt that I should see my manger regularly cleaned of all incumbrances. But to my surprise it was not so. Then I tried sprinkling with brine, but this would not induce the brute to clean her trough; nor did the subsequent use of bran or meal accomplish the object any more effectually. I gave up that my cow was dainty, and shoveled the rejected butts into the stall to mix with the manure.

I have since owned several different cows, but my experience on the stalk question has not varied from that in the foregoing case, and I have come to the conclusion that the kind of cattle which it is my luck to own, are not the kind which relish stalk-butts. So far as I can judge, without weighing, about as large a proportion are left uneaten, whether fed cut or uncut. The experience of other people may differ from mine, and yet from a somewhat extended observation, I am inclined to think that in a large majority of cases, other people's experience is about like mine.

But there are exceptions to almost all rules. For instance, some men's stock will eat about anything and everything fed to them. Whether it is in the way of curing their food, or of feeding it to them, or from some other cause, I will not take it upon me to say, but this I noticed in the management of a stock in which I had an interest a few years ago, the cattle ate clean whatever was given them. Among their winter supply of food was a quantity of stalks, which were fed to them whole, and which they so completely devoured that I was never able to detect any considerable amount of refuse in their mangers, or about their stalls, or in their manure, and I really doubt whether any one could have gathered up a wheelbarrow load of uneaten stalks from the product of two or more acres which was fed to that stock. And yet it wintered well, though it always seemed to have an appetite for all that was given it.

In trying to account to myself for the clean work made of the stalks in this case, I had to confess that the man having charge of the cattle, had the peculiar "faculty" of having them eat what most of us have tried in vain to have ours eat. He manifestly never cloyed them with that particular kind of food, and somehow they seemed

to understand that when they had eaten up their stalks they would get something else—and not before.

From all that I have read and observed therefore, I conclude that well cured stalks are good and valuable food for stock; but that in a large proportion of cases, a certain quantity will be utterly rejected as food, or if eaten at all, eaten quite reluctantly, and that this is true whether fed whole or cut and mashed with a good machine. Consequently he who buys a machine, thinking that he will thereby secure clean work with his stalks, will probably live to find out his mistake. However, if he wishes to feed meal or bran with them, it is certainly an advantage to have them cut, and besides, if there are any left, they mix much more readily with the droppings of the stable. This, so far as I can yet see, is the conclusion of the whole matter. If I should get further light from observation or experience, I may be anxious to communicate according to the light received. S. Clinton, Feb. 14.

THE WISTARIA.

There are, in almost every garden, certain situations in which climbers may and should be planted; as for instance by brick or stone walls, board fences, old trees, outhouses, &c. An excellent climber for some situations, is *Wistaria sinensis* or Chinese *Wistaria*. It has many qualities to recommend it. Perfect hardiness, handsome foliage, elegant flowers of delicious perfume, constitute some of its claims on popular regard. Where it has a trellis or wires to run upon, it requires no care whatever, as it twines itself so closely about these supports as to be absolutely a fixture, it being an impossibility to remove it. Where it is trained to a wall without any rods or wires, it will require to be tacked to it every few feet of growth. It will be found to save much trouble, if stout wires are stretched at about 12 inches distance from the wall round which the plant may entwine its shoots.

It is one of the most rapid growers of all the climbers, frequently making twenty feet of growth in a season. Although such a vigorous grower, it can be easily kept within any desirable bounds, and by frequent pinchings and prunings can be restrained so as to curb its natural rampant growth, and induce a more profuse display of flowers.

One objection to the *Wistaria* is that it bears its long, pendulous clusters of pale blue flowers, before its leaves have expanded. One other objection is that the plant needs to be quite old before it begins to bloom.

We can conceive of no better climbers for a lofty blank wall than the *Wistaria*, our Native Grapes, or the American Ivy. And these are all of such easy propagation and cultivation, are so hardy and suited to our climate, and are so beautiful in foliage, that it really seems there can be no excuse for a person who hesitates to plant them in localities which seem especially to need just such plants.

G. B. H.

The statement of shipments of Grain and Flour for tide water, from Buffalo and Oswego, shows that the amounts afloat upon the Canal were as follows, at each of the dates mentioned, three weeks being included:—

	Flour, barrels.	Wheat, bushels.	Corn, bushels.	Oats, bushels.	Barley, bushels.
May 14.....	18,691	3,257,535	975,746	24,258	38,684
May 21.....	41,785	2,827,041	1,174,813	24,258	87,220
May 28.....	48,751	1,812,285	1,356,136	11,860	34,554

These are the figures given by the Buffalo Express. They seem to show that the amount of wheat coming forward is on the decrease, while that of Flour is gaining, and that of Indian corn also increases considerably.

A vessel which sailed from Boston, May 17, for Australia, took out two trotting stallions, grandsons of old Black Hawk, and nine Merino sheep from Vermont flocks.

[For the Country Gentleman and Cultivator.]

THE ATWOOD MERINOS.

EDS. CO. GENT.—L. C. MEAD of Cornwall, Vt., in your issue of May 1st., has some remarks on my notice of the sheep of the Messrs. COUCH, as per the Co. GENT. of April 3d. I have delayed replying to Mr. Mead till this time, as I wished with this, to forward the weight of some of the fleeces of this year's clip.

Perhaps I was not quite as particular in my account of the Messrs. C.'s flock as I should have been—as I said nothing of their having purchased ewes as well as bucks of the Atwood Merinos.

Their first purchases were in 1857. From that year till last autumn, they have purchased five bucks and about forty ewes, paying from ten to seventy-five dollars per head for the ewes, averaging about \$25 each.

Of the 106 lambs raised in 1861, I stated "a large portion of them were of the pure 'Atwood breed.'" After the publication of my letter Mr. C. informed me that this was a mistake, as there were only about 20 of the lambs "pure bred." This year they have a larger number.

The Messrs. C.'s have been careful breeders, and had very much improved their flocks years previous to purchasing from "Addison county flocks;" and it is the breeding ewes of their original stock that they value at \$10 per head.

They have purchased sheep in Vermont, from W. R. Sanford of Orwell, Jesse Hinds of Brandon, Lawrence of Monkton, and of one or two others whose names are not recollected. With these flockmasters and their flocks, probably Mr. Mead is well acquainted. Some of our farmers think the Messrs. C.'s have foolishly expended their money in purchasing these high priced sheep. But the Messrs. C.'s are satisfied with the investment of their money, and they are shrewd common sense people who manage their business systematically, and know at the end of the year the exact "profit and loss" of their labors.

They have sheared a portion of their sheep—without washing—four of the fleeces weighed 66 pounds—the heaviest fleece 18½ pounds. Last autumn they purchased a buck lamb, then six months old, for which they paid \$100, which when 13 months old sheared 15 pounds.

Within the past few years there has been much discussion at the agricultural meetings, and in the various agricultural journals, in reference to the most profitable breeds of sheep for our farmers to rear. The different varieties are classed as mutton sheep and fine-wooled breeds. Which are the most profitable breeds for different farmers to rear depends upon various circumstances, such as the nearness or remoteness to good cash markets, quality of pastures, winter-keeping, &c. At one of the Legislative Ag. Meetings in Boston last winter, the subject of discussion was on "Sheep Husbandry." Mr. C. L. Flint, chairman of the meeting, said: "The breeds which would be likely to give the most profit in the eastern section of the State, were believed to be those which fatten readily and make good mutton—such as the South-Down, Oxfordshire-Down, Cotswold, &c." And very probably Mr. Flint is right in his views in regard to the eastern part of Massachusetts. There is always a ready cash market for prime mutton and lamb.

Dr. Loring in the discussion, gave it as his opinion that the Merinos are the only breed that can be systematically and profitably kept in the State. The advantages of this breed over the English breeds, in his opinion, are "that they can be kept in larger flocks, and will endure hardship better; that they will yield a greater quantity of wool worth more per pound." The Dr. farther remarked, "He did not regard mutton as an article that can be profitably produced here. He thought it could not be sold in large quantities. Hind-quarters were regarded as a luxury; but what becomes of the fore-quarters? Does anybody fatten sheep except at a loss?"

To the last quotation I have made from the Dr.'s remarks, John Johnston replies in a letter published in the Boston Cultivator of March 22d. He says:

"In reading your report of the late discussion on sheep I was a little surprised to see the remarks attributed to Dr. Loring." Mr. Johnston writes—"What does the gentleman suppose becomes of the 450,000 to 500,000 sheep that are annually sold in the city of New York, some 250,000 in Philadelphia, and probably an equal or greater number in Brighton or Cambridge? I have fattened sheep for the eastern market for nearly forty years. I have fattened various breeds, and by looking at the reports of the New York live stock market for the past year, it will be seen that the Merino sheep, well fattened, brought from half a cent to a cent a pound more, gross, than coarse wooled sheep, excepting some very large Leicesters and Cotswolds, for which the butchers pay a high price to make a show. Merinos can be made large if well cared for from their birth. The coarse wooled breeds come sooner to maturity."

By the way in which some persons talk and write about the fine wooled breeds, we should be led to suppose their whole value consisted in their fleeces—that their carcasses were of little or no value for mutton when contrasted with that of the coarse wooled varieties. Now it is possible there may be some prejudice in this matter.

Thus, L. F. Allen in an agricultural meeting, stated "that he could distinguish different breeds by the taste of the mutton, in thin slices—and said fine wooled animals secreted much grease and thus prevented proper perspiration, and that he could 'taste the wool' in the meat." By way of *set off* to the above, "J. Harris of the Genesee Farmer, subsequently at the same meeting, stated that he had always been an advocate of the same views; but being subsequently at John Johnston's, the latter had a very fine saddle of mutton on his table, and called him to test his theory. "What kind of sheep is this mutton from?" asked the host. "Why," replied he, "it appears to possess all the excellence of the South-Down, but its size indicates the Leicester; it must be the South-Down." Other gentlemen present concurred in its excellence. "It is the Saxon Merino," remarked Mr. Johnston to the surprise of all, and to the utter demolition of the beautiful theory that Mr. Harris' pre-judging had built up.

At the present time pure bred sheep of all the better varieties command, as store sheep, high prices, and those farmers, who purchase these high priced breeds, will be likely to take a deeper interest in, and much better care of them, than they would of the more common and mixed varieties among us.

Care and system in the management of sheep is absolutely necessary for the successful prosecution of the business. The success of our best flock-masters fully attests the correctness of the above statements, in the management of their fine wooled breeds, and we have no doubt but those engaged in mutton breeds will prove equally successful with similar care and system. And it would be the extreme of folly for any one to pronounce this or that particular breed of sheep as the *one breed* above all others, the most profitable in all locations and for all farmers. L. BARTLETT. June 9th, 1862.

P. S. The Messrs. Couch's usually fatten a portion of their wethers each winter,—three and four years old, obtaining for them as mutton, from \$3.50 to \$5 per head.

L. B.

RELATIVE VALUE OF FOOD FOR MILCH COWS.—Several French and German chemists estimate the relative value of several descriptions of food for milch cows as follows:—That 100 pounds of good hay are worth 200 pounds of potatoes; 460 pounds of beet root, with the leaves; 350 pounds of Siberian cabbage; 250 pounds of beet root, without the leaves; 250 pounds of carrots; 80 pounds of hay, clover, Spanish trefoil, or vetches; 50 pounds of oilcake or colza; 250 pounds of pea straw and vetches; 300 pounds of barley and oat straw; 400 pounds of rye or wheat straw; 25 pounds of peas, beans, or vetch seed; 50 pounds of oats; or 500 pounds of green trefoil, Spanish trefoil, or vetches.—*Scottish Farmer*.

What is that which makes all women equally pretty? Putting the candles out.

[For the Country Gentlemen and Cultivator.]

SEA WEED AS A FERTILIZER.

MESSRS. EDITORS—I have been an attentive reader of THE CULTIVATOR for some years past, and think it a valuable publication for the farmer. I fear its merits are not as highly appreciated as they should be, by those whom it is most calculated to benefit. Indeed there are none so wise, of whatever profession, but might learn something useful from its perusal, provided a practical application was made of its hints and suggestions.

The great advantage of THE CULTIVATOR is the opportunity it gives to farmers situated in different parts of the country, to express their ideas, thus furnishing a medium for free interchange of thought on all subjects relating to farm management.

It is with no small degree of diffidence I avail myself of this privilege which you so freely accord to others, since this is the first time I ever attempted to write for any publication. Nevertheless, I overcome my scruples when I consider the importance of the subject about which I am to write, and also that it has never, to my knowledge, been even mentioned in your columns.

The great object for which I write is to draw to the subject the attention of others of more experience than myself, and to induce them to give to the world the benefit of that experience.

The subject is the proper management of Sea Weeds, or the Drift of the sea shore, as a source of manure. I am well aware, to the greater portion of your readers, those residing at a distance from the water, the subject is or no practical importance. Nevertheless, THE CULTIVATOR must find its way to homes "close by the sea shore"—in New-Jersey, Long Island, Connecticut, Rhode Island and Massachusetts. The immense quantities of drift cast upon the shores of these states, amounting annually to thousands upon thousands of loads, must be of great value to those living near the water, and so situated that they can apply it to the soil.

The "drift" is a constant and inexhaustible source of manure, and never fails. It being a natural growth, the quantity does not materially vary from one year to another. There are three distinct varieties—it is not my intention, however, to give any description of them at the present time—suffice it to say when nearly arrived at maturity, their hold upon the place that nurtured them is broken, and they are cast upon the shore. "Drift" is the term usually applied to them in this state. If not gathered, it "moveth about withersoever the wind and waters taketh it."

That it should be collected and applied to the land, no one will doubt. The important question is—what is the best manner of applying it? In the natural state or decomposed? If decomposed, what is the best method of rotting it? These questions, and many others relating to the varieties, (for all varieties will not admit of the same treatment,) it is important should be satisfactorily answered. None are better able to do so than those who have tried the various methods, and who judge from their own experience.

The easiest way of applying the drift, and as far as my observation has extended, the one most generally practiced, is to spread it on the surface, either to be "plowed in" or left on the surface as a top-dressing. There are two objections to this course which I think more than counterbalance all the good that may come from it.

1st. The seeds of many foreign and dangerous weeds are introduced into the soil, which it is nearly impossible to eradicate. 2d. It is unphilosophical.

Those at all familiar with the sea shore have observed the many curious forms of vegetable growth at the margin or limits of the highest tides. Some localities, favorably situated, abound in a great variety of weeds of all sizes, colors, and descriptions. There are also a number of varieties of grasses, and these taken in connection with the weeds would furnish an interesting study for the botanist.

I have often noticed a kind of grass resembling the "quack" of the upland, growing, however, much more luxuriantly. I have no doubt it is the veritable "quack"—its nature somewhat changed by the action of the salt water.

Now the sea weed being washed by the tide among these weeds and grasses, must become filled with their seed. Especially is this the case in the fall months, when the seeds having arrived at maturity shell and drop easily. When the sea weed is applied to the land these seeds must necessarily pass into the soil—some to grow, others to decay, because deprived of the influence of the salt water. To show that this reasoning is not visionary, one illustration will suffice. The facts of the case I can vouch for, as it came directly under my own observation.

A seven acre pasture lot situated close to the water,— "very handy to cart on to,"—was covered over with drift three years in succession. It was then plowed and planted with corn. Much to the surprise of the owner when the time for hoeing came, the "quack" was so thick the lot looked like a field of wheat flourishing finely in the month of October or November. There was never known to be any quack in the field before, excepting in one small corner where the tide occasionally overflowed—a convincing proof that the quack was brought in with the sea weed. This manner of applying the drift I therefore consider hazardous, and never to be risked except under peculiar circumstances, which I may mention at some future time.

2d. It is unphilosophical. The nature of the drift is such that it decomposes very slowly, and being placed on the surface, subject to the action of the sun and wind, it loses one of its chief virtues—its saline properties. To be sure, a small portion of the salt it contains may be "washed into" the soil by the rain, but the greater portion is evaporated and passes into the atmosphere. If it is "plowed in," this difficulty is obviated; but the quantity that can be treated in this way is at the best but small, compared with the whole amount accumulating throughout the year.

Therefore it is my opinion that drift should never be applied to the soil in its natural state, or at least in the condition it is taken from the shore. To be used advantageously it must be decomposed. To hasten decomposition, and at the same time to increase its value as a manure, it should be composted with other materials—the substances that are adapted to this purpose, i. e., those that are the most available—those that will "pay the best." The best method of treating the different varieties of sea weeds, are inquiries which I shall consider at some future time. A YOUNG FARMER. Greenwich, Conn.

[For the Country Gentleman and Cultivator.]

On Rupture of the Gullet and Vomiting in Cattle.

On or about the first of March of this year, I was called in to give my opinion about a small Ayrshire cow, the property of and just newly purchased by a Mr. Henderson, dairy proprietor in this city. He had bought her on the day previous in market, without warranty, from a cattle-dealer, who said he knew nothing about her. Nothing wrong was observed about her until towards the evening, when she was observed to swell up on the left side, and vomit on attempting to swallow food; which latter I may mention here, was sloppy, and naturally easily swallowed. Next morning she repeated the same process, vomiting again, and not without evincing considerable pain.

Diagnosis—Rupture and Impaction of the Gullet.—On passing the probang, I found the obstruction to be in the thoracic portion of the gullet. With some care the instrument forced its passage through, and for a time food passed through the opening and afforded the animal temporary relief. I ordered her to get nothing but diluents, with a view if possible of breaking up and washing down the mass into the stomach. The probang was passed for

several days, each time affording relief; but the opening speedily filled up again, followed as a matter of course by the vomiting and distention of the rumen. In this state of affairs, I recommended an operation for its removal through the walls of the stomach; but the owner, evidently doubting the nature of the case, would not consent.

This being the case, I had no resource left but to watch how the affection proceeded, still recommending diluents to be allowed only. The animal began to waste, but still gave milk, which latter one hardly expected. This, however, she did until the seventh week, by which time she was reduced to a living skeleton, ultimately dying of exhaustion.

Post mortem.—Bowels and stomach completely empty, with the exception of some indigested matter on the first stomach. Gall bladder distended; liver, kidneys and other viscera healthy. On cutting into the thorax the lungs were observed healthy; heart usual size and healthy, but immediately between the upper lobes of the lungs I found, as I anticipated, that the muscular coat of the gullet was ruptured to the extent of nine inches in the direction of its tube. The consequence of this was a loss of power on the part of the gullet to contract on and force down the food into the stomach, its accumulation at the ruptured spot extending the mucous or internal wall of the gullet into a large oval sac.

REMARKS.—Vomiting but rarely happens in cattle, occurring only in such cases as this, or in constriction of the gullet. The diagnosis between the two is, however, not very difficult. I have seen but one case similar before; it also occurred in this city while I was a student at the *Edinboro Veterinary College*. In that case we operated by cutting into the stomach and passing the hand from thence into the gullet; the obstruction was completely removed, and so far the operation was successful, although too long delayed to save the already exhausted animal.

The gullets of both cows are now in the museum of the *Edinboro Veterinary College*. RUTHERFORD, V. S.
Veterinary Infirmary, Edinboro, Scotland, May 13, 1862.

[For the Country Gentleman and Cultivator.]

MANUFACTURE OF SORGHUM SUGAR.

MESSRS. EDITORS—As I have recently noticed several inquiries in the *COUNTRY GENTLEMAN* in reference to the raising and manufacturing of the sugar cane, I thought I would offer my mite to the general fund of information, which you can accept or not as you see fit.

Iowa has so far taken the lead in this new branch of agriculture; being the first to engage in it, and having produced the greatest number of gallons of syrup and pounds of sugar. Last year we produced a greater number of gallons of syrup than were consumed in the State, of both home-made and southern molasses, besides a large amount of sugar, which is more than can be said of any other Northern State. This year, if the season is favorable, we expect to export a large quantity. So I think we are as well qualified to speak from experience here as in any other section of the country.

First, the kind of cane. The sorghum or Chinese cane is almost universally preferred; it making a greater amount, and a better quality than any other kind. However, there are a very few who prefer the Imphee.

The kind of soil best adapted to raising cane, is a light, sandy loam. It should be high and dry, and be manured the previous year, as cane grown on freshly manured ground tastes too much of the ammonia.

There are various opinions as to the best method of planting; some preferring to plant the seed dry, others to soak it long enough to thoroughly moisten the seed, and still others to soak it in warm water twenty four hours, and then hang it up in a bag in a warm place till it sprouts from a quarter to half an inch long, and then plant in newly plowed ground. The latter plan I think is the best,

for it is so very slow to start that the weeds are apt to get the advantage of it before it is large enough to cultivate, and this gives it fully a week's start of any other way. Cultivate same as corn, and when ready to manufacture, the blades may be stripped off very expeditiously by using a light stick from three to four feet long, and striking from the top of the stalk down. In this way a good hand will strip from one-third to one-half an acre per day.

A number of different patent contrivances have been used in manufacturing, but none have been found to produce a better article than the simple wooden pan with sheet-iron bottom, placed on a furnace.

When the juice is ready for boiling, before warming add one gill of milk of lime, (made by placing stone-lime in a close vessel and keeping covered till slacked; when used, stir up to the consistency of good white-wash.) Boil rapidly, and keep well skimmed as long as the scum has a green color. As the whole secret of making a good article is in skimming, it should be carefully attended to; one hand standing over the pan constantly till done. It is boiled sufficiently for good molasses when it strings out like hairs when poured slowly in a small stream. For sugar, boil from five to eight minutes longer. When it is boiled sufficiently to begin to foam, like maple sugar when nearly done, the fire must be kept low to prevent scorching.

When going according to these directions, no difficulty has been experienced in making both sugar and molasses of a good quality. S. S. BOZARTH.

West Liberty, Iowa, June 2, 1862.

[For the Country Gentleman and Cultivator.]

A WHILE IN THE ORCHARD.

The apple is a very good fruit if well ripened, and in order to have them hang on the trees until ripe, we must go through the orchard first and see what it wants. As we go through, we see many limbs chafing each other so as to chafe the bark off. We know when the bark is chafed, the sap does not flow freely, so one of the limbs that chafe must be taken off. We find some of the limbs run up nearly perpendicular, and if any apples set on them they will be shaken off, because when the wind blows, it gives a quick jerking motion to the limbs and prevents the fruit from hanging on. Some of the limbs run out horizontally, or at such an angle that after the fruit has set and grown larger and heavier, they cause the limbs to bend and sway in the wind so the fruit will hang on the trees until they are ripe. We do not want the limbs to run up towards the sky only high enough to make a good head, and then run out horizontally to make a good shape. I think the best shape for a tree is to have the lower limbs high enough for a team to pass under, with the head of the tree low, and with wide-spreading branches. If the limbs are too thick for climbing among them, they must be thinned out by going into the top of the tree and working our way down, which I think is a better way than to trim as many do—that is, they stand on the ground and trim what they can conveniently reach, which they call trimming up their orchards. If any one will look up into the trees of an orchard trimmed in this way, and one that is trimmed the way I propose, he will very soon see a great difference in favor of my plan.

Some will scrape off the rough bark of the body of the trees and wash them, which looks very well at the time, but some more rough bark will come on again. I think the best tree-scraper is the plow used in the soil, stirring it often, and preventing all weeds and grass from growing. If the plow is used thoroughly, the rough bark will fall off and leave a bright smooth healthy bark, which is much better and looks better than the scraped trees.

Most every one knows when he sees an orchard of good shaped trees, how well it looks, and it would be well for all to go to their orchards and imitate as near as they can. If you cannot make the form you desire the first year, lay your foundation, to be continued in after years. D. D.

COL. DUANE'S SEEDING MACHINE.

On the 10th June we attended a trial of Col. J. B. DUANE'S Seeding Machine, of which a very full description and several brief notices have heretofore appeared in our columns. We had never before personally witnessed its operation, however, in the field, although it was tested at the State Fair at Watertown, and has been doing considerable work during the past two seasons, we understand, for farmers about Schenectady.

The trial was held upon the farm of Mr. COLLINS, on the Mohawk flats near that city. The soil there is of a kind to show the working of such a machine to good advantage, but its condition was unfavorable, having been plowed when not sufficiently dry, and baked in quite hard clods under the sunshine.

Col. D.'s Seeder, as our readers may remember, combines in once passing over the surface of the ground every operation connected with the complete putting in of the seed. Teeth of a peculiar shape, devised to avoid clogging with anything over which they may pass, first cut up and cultivate the plowed ground, lying just as the plow left it; any desired grain then distributes itself over the surface just behind the cultivator teeth, and is covered by a drag following them; clover seed, or clover and timothy are next sown, and covered by a fine saw-tooth drag; the roller follows, and, last of all, plaster is distributed over the surface behind the roller, at any desired rate per acre. [See vol. XVIII Co. GENT., page 253, for cut and fuller description.] Thus the ground is passed over but once, in breadths of four feet, although it is designed to construct machines of six feet width; the whole work is completed as fast as it is begun—neither rain nor any other cause having an opportunity to intervene and leave the operation half done—the grain half dragged in, or the clover unsown, or the land unrolled, and consequently unfit for the reaper and the mower at subsequent harvests.

The points which the actual trial of the machine, as compared with seeing it not in operation, brought most particularly to our notice, are these:

1. The success with which the inventor has harmonized and combined in small compass so many different actions, and the simplicity with which each by itself is accomplished. The weight of the whole apparatus is adjusted so as to balance itself upon the roller—just where it is wanted. The roller itself can be consequently constructed of as light material as is compatible with strength. Castor wheels in front, and the two sections in which the roller is made, enable the machine to turn with perfect ease in its own width, so as to begin the next breadth just at the edge of the last one. The driver, seated behind, regulates everything, from the depth of the cultivator teeth in front, to the throwing of the whole out of gear, without leaving his place.

2. The great ingenuity displayed in the several parts. The cultivator teeth in passing through the barn-yard to reach the field, cleared themselves of the loose straw as they went along. By changing them for those of another pattern, the land is thrown in narrow ridges and the seed therefore comes up in perfect drills. By reference to page 253 of our last volume, already alluded to, other ingenious devices will be observed, all of which performed very satisfactorily, the parts they were intended to fill.

3. The ease with which so much labor is done at once. The team employed was an excellent one for farm work of any kind, never lagging or hanging back in their work; but they were not heavy, and although it was a good pull for them, and the day oppressively warm, the task seemed quite as easy and much less noisy than the working of a Reaper. We tested the draught by an ordinary spring dynamometer, which varied in the oscillations of the index, with the movements of the team and casual obstruc-

tions, from two or three hundred pounds all the way up, but it lingered most and oftenest between 350 and 400 lbs., and the average could not have been far from 375 to 390.

4. The machine was tested first in sowing oats, and then with peas; the seed was perfectly covered in both cases, and the land left, as all who were present conceded, in fully as good, if not in better order, than if the several operations had been performed one by one in the usual method. The advantage here involved, is that by the use of such a machine, the farmer is sure of having his work well done throughout, whereas when each is done by itself, those which are not absolutely necessary to the growth of the seed at all, are frequently slighted, if not wholly omitted, in the hurry of the season, from stress of weather, or from that other cause which affects the performance of so many duties, away from the farm as well as on it—the spirit of idleness inseparable from "human depravity."

On the other hand, we have the objection that every farmer must sometimes wish to perform the separate operations combined in the Duane Seeder, one by one, and that in making this expensive addition to his farm machinery, he does not altogether obviate the necessity of procuring the detached implements for other tasks. A story was also told on the field, of some early citizen of Schenectady, more fond of large and forcible expressions than he was capable of understanding the accurate definition of the long words he so constantly employed, and who complained when Dr. NORR first brought out his improved cooking stove, that "there was a plaguey sight too much metaphysics about it." But, as already stated, each part of this machine—however "metaphysical" the whole may appear—is really simple in itself, and the danger of derangement arising from the number and complication of its parts, must be, in point of fact, less than we had feared. It is not a machine which a farmer would thoroughly comprehend until after some study and examination, unless possessed of more than the usual degree of mechanical aptitude, and, when thoroughly mastered, we fancy he would much rather work it himself than entrust it to most of the hired men he would be able to employ. But the same thing might be asserted with regard to the mower, and still more with regard to the reaper; and there is no doubt of the fact that our farmers are now much better acquainted with mechanical principles than they were twenty years ago. They have been educated up to the daily use of much machinery which would have appeared to their fathers quite as full of troublesome "metaphysics" as Dr. NORR's cooking stove did to those who had never before had anything but an open fire-place.

Upon the same field in which the Seeding Machine was tried, there had been one strip of oats put in a week or ten days previously, which showed, from the manner in which they were appearing above the surface, how well and evenly the seed was sown. In the next field we had similar evidence in regard to clover seed. We then drove out, about three miles, to the farm of JACOB HOUCK, Esq., at Glenville, to inspect a field of oats ridged in, in very perfect drills, by the same machine with different cultivator-teeth attached as above noted. The appearance of the young grain was very fine and even, with the exception of one strip where its imperfect growth had not been in any respect the fault of the machine.

If space permitted we should add some remarks with respect to the farming in this part of the Mohawk valley. We have never seen a farm more perfectly neat or apparently more thoroughly tilled, nor buildings more commodious and convenient for the purposes of such a farm, than we found at Mr. HOUCK's;—and this word of commendation although it may seem high, we shall hereafter hope to prove well deserved by a more complete description, if time permits our visiting Glenville again during the season. Among other farmers with whom we had some conversation, and whose systems of practice we shall some time hope to record, are Messrs. COLLINS, CHARLES SANDERS and ALBERT VAN VOAST. J. D. WATKINS, Esq. of Schenectady did much to forward the success of the trial.



ALBANY, N. Y., JULY, 1862.

☞ In the midst of a refreshing and much needed rain on the 4th June, we set out for Central New-York, congratulating ourselves that the drouth was at last at an end. At Syracuse we learnt that during the whole month of May there had been but about an inch and a half of rain, in round numbers, two-thirds of which fell during the first two days of the month, leaving the whole of the remainder very unusually dry. There could not have been so much rain last week, we judge, in Central New-York, as there was in the eastern part of the State, and we regretted to hear by friends from Buffalo and Rochester, that the showers there had been still lighter, scarcely wetting the surface of the ground.

The prospects for Fruit about Syracuse appear to be uniformly good. In the fine young orchards of V. W. SMITH, Esq., the pear trees were as heavily burdened as they well could be, and as to plums he remarked that there would be plenty this season for human use even after the curculio has taken all it wants.

As to the Farm crops, a drive with Mr. GEDDES showed that the winter wheat and grass have both been kept back for lack of moisture, while spring grain must also be somewhat behind. Mr. G. does not think the prospect for grain nearly so good as last year; it is well to add *how good* his own grain crops were in 1861, in order to understand the basis of this comparison: Upon 62 acres of winter wheat and 12 acres of spring wheat, harvested on the farm last autumn, *the average yield throughout* was twenty-eight bushels per acre. JOHN JOHNSTON had been at Mr. G.'s just before our visit, and thought the promise of the wheat now as good there as it is about Geneva. Mr. Geddes is constantly growing a smaller proportion of white wheat and a larger surface of Mediterranean. The latter has modified its character very much since it has been produced in his vicinity, and is now known as "Onondaga Amber." For domestic purposes it is preferred by Mr. G. to the white wheat, the bread made from it being moister, and quite as white as we ever desire to see it.

In an address last year we referred to Mr. G.'s farm as furnishing an example with respect to the amount of manure made upon it,—stating that he keeps a flock of sheep of just about as many head as he has acres on his farm, and is "careful to turn all the straw he grows into manure." The latter part of this assertion is quite incorrect. Straw sells readily there, and a large amount is yearly disposed of; but, in point of fact, it would be almost impossible to tread down and apply *all the straw* produced in the form of stable manure. What Mr. Geddes did do last year has given him a larger amount of manure than we ever before saw on one farm in this country,—from 13 to 16 piles, which have been put up during the spring in cleaning the yards, to await autumn application, mainly on the surface, and which have almost as neat and trim an appearance as so many stacks about an English farmstead. About forty acres of grain straw, about thirty acres of clover straw thrashed for the seed, and the waste of twenty-six acres of corn and forty acres of hay, entered into their composition during the winter, so that they probably represent quite as large a quantity as if the straw of the whole wheat crop of 1861 had been reserved by itself for the purpose. The present year there are 106 acres in wheat, 18 each in corn and barley, and 8 in oats—a total of 150 acres, leaving somewhat more than one-half the farm in grass and clovers, permanent or otherwise. Notwithstanding the native fertility of the soil here, and the amount of yard manure made, the main dependance,

as we have heretofore stated after other visits, is upon clover and plaster, so that, in comparison with the benefit derived through the last mentioned agency, Mr. G. is almost inclined to regard yard manure as something of a drug, and is placed above the necessity of composting it with peat, &c., to increase its quantity, and of closely economizing all other manurial resources, as many less fortunately situated farmers are obliged to do. But his manure yards are tight, and their contents will not leach away; and for careful management, quite as much as for the amount that is made, a profitable lesson might be conveyed to any visitor at the farm in person, if not to any reader of these already too prolonged remarks.

☞ During the past two months Hon. A. B. CONGER of Haverstraw, has been making several important additions to his already extensive herds of Short Horns and Devons.

Mr. J. R. PAGE of Sennett, completed a number of purchases of Short-Horns for Mr. CONGER in April last—among them the "Duke of Thorndale," bred by SAM. THORNE, and purchased of DANIEL McMILLAN of Springfield, Ohio; the imported cow "Violante," bred by JAS. DOUGLASS of Athelstaneford, Scotland, and imported by the Society of Shakers at Lebanon, Ohio, together with five others of less celebrity, also purchased from the Shakers; the imported cow "Bright Eyes 3d," with her daughter, purchased of J. D. PATTERSON of Chautauqua Co., also "Artless 3d," a two-year old heifer sired by Lord of Oxford, from the same herd; the cows "Vermillion" and "Queen Mary," purchased from WM. D. PIERCE of South Charleston, Ohio; "Grace" and her calf, from JAS. HALL of Paris, Ky.; "Coquette" and her calf, from WM. R. DUNCAN of Winchester, Ky., and last, but not least, imported "Lydia Languish," by Duke of Gloster, "Pearlette," by Duke of Airdrie, "Jessica," by Albion, and "Winona," by Fantichini, all from R. A. ALEXANDER, Woodburn Farm, Woodford Co., Ky.

Besides the foregoing, Mr. PAGE passed through here last week with a second installment, among which, we are informed, were the bull "Old Warrior," bred by RICHARD BOOTH, imported by the Clinton County, Ohio, Association—purchased from WM. PALMER of that county; and several Short-Horn cows, including "Miss Belleville," imported by the late NOEL J. BECAR, purchased from E. MARKS of Camillus, Onondaga Co. There were also four Devon cows from the herd of AMBROSE STEVENS of Genesee county.

We did not have the opportunity of seeing either of these transshipments, but from their pedigree, and the opinion expressed by Mr. PAGE, whose judgment in stock matters deservedly stands high, they cannot but prove a valuable accession to the breeding establishment at "Waldberg."

CROPS ABOUT PHILADELPHIA.—A ride through portions of Chester, Montgomery, Delaware, and Philadelphia counties, shows a fine promise of the wheat crop—the only drawback being the large portions beaten down by the late great storm. The Mediterranean is exclusively sown. Fields generally appear as well as in the best portions of Western New-York, but the growth is six inches to a foot taller, and the heads rather shorter. Farmers think that the product will average 18 or 20 bushels per acre; and the best cultivators expect 25 to 28. Thirty bushels is about the highest product. Corn looks well for the late season, and the grass crop will be about medium in amount. I have seen meadows of some of the best farmers that will certainly bring three tons. J. J. T. 6 mo., 11th.

☞ The pecuniary value of the money and medal prizes offered for competition at the great International Cattle Show to be held at Battersea Park, London, June 23-27, is a little short of \$25,000.

What can FARMERS' CLUBS do beyond holding Winter Meetings for mutual intercourse and discussion, to promote the improvement and progress of Farming? This question is often asked. A great deal may be done through the summer months to keep up the interest and increase the efficiency of Farmers' Clubs. The Lincolnshire (England) *Chronicle*, an excellent paper which we receive with great regularity, affords an example in point, through the medium of an advertisement of the "Lincoln Farmers' Club," which offers the following "clipping prizes," as they are there termed, with an appointment of the farm on which the clipping is to take place, June 3d, when the following prizes will be given:

To the man who shall shear 6 sheep in the best manner, time considered.....	£.	s.	d.	
To the Second.....	2	0	0	—say \$10.00
To the Third.....	1	0	0	5.00
To the Fourth.....	0	10	0	2.50
To the Fifth.....	0	5	0	1.25

The conditions are that competitors should be nominated by members of the Club, and reside within 12 miles of the Guildhall at Lincoln.

THE LIVE STOCK AND AGRICULTURAL PRODUCTS OF THE STATE OF INDIANA.—The census of 1860 gives the following returns as to the Agriculture of the State of Indiana:

LIVE STOCK—NUMBER OF HEAD.			
Horses,	409,504	Milch Cows,	491,033
Asses and mules,	18,627	Working Oxen,	95,982
Sheep,	2,157,375	Other Cattle,	582,980
Swine,	2,438,528		
Value of Live Stock,			\$50,116,964
Value of slaughtered animals,			9,592,322
AGRICULTURAL PRODUCTS.			
Wheat,	15,219,012 bushels.	Wool,	2,466,264 pounds.
Corn,	69,641,590 do.	Irish Potatoes,	3,573,134 bushels.
Oats,	5,028,751 do.	Sweet Potatoes	284,300 do.
Tobacco,	4,657,969 pounds.	Butter,	17,934,764 pounds.
Flax Seed,	158,272 bushels.	Cheese,	569,577 do.
Flax,	17,112 pounds.	Hay,	635,324 tons.

We have received the Prospectus of a company entitled the New-York and Nicaragua Colonization Association." It appears from it that offers have been made of "large grants of land in more than one of the Central American States, on terms but little above the cost of record and survey, and on the sole other condition of immediate colonization and rapid settlement of the country." It is proposed to found a practical working colony, for which that part of Nicaragua near or about the head of Nicaragua Lake has been chosen as the most advantageous site. The climate and healthfulness of the country, the fertility of the soil, the character of the natives, are all most highly spoken of. The letters published in this Journal from our Minister to Nicaragua, Hon. A. B. DICKINSON, (one of which may be found on another page of this paper,) afford farther information on these topics.

"For the purpose of organizing this emigration, establishing manufactories, opening up the mines and developing the agriculture of the region selected, this association has been formed, and a charter under the laws of the State of New-York has been taken out with a capital of \$50,000, divided into 2,000 shares of \$25 each. Each share will be entitled to a grant of 25 acres of land, which the shareholder may own in his own exclusive right; and, besides that, he will be entitled to his pro rata interest in the enterprise and profits of the corporation."

The President of the Association is Dr. E. S. TYLER, who is said to have been an extensive traveller in Central America. The Secretary, who may be addressed for farther information, is Mr. T. C. LELAND, 614 Broadway, New-York.

The periodical formerly published at Montreal—the "Farmer's Journal," we believe it was called—surpassed anything else in our experience, in the unblushing appropriation of articles from the columns of other Agri-

cultural Journals. But its successor, the "Lower Canada Agriculturist," bids fair to equal if not exceed it, in this direction. Several of the recent numbers have shown a marked degree of progress, and the one for June, contains page after page filched from the columns of the COUNTRY GENTLEMAN and other American papers, without a single word of credit. Our exchanges on this side the lines, are many of them careless and unfair enough in respect to credits, but the palm must be awarded we think to the official organ of the Agricultural Board of Lower Canada.

The Journal of the Illinois State Ag. Society for June, contains a Report on Agricultural Statistics submitted to the Madison County Society of that State, by a Committee of which W. C. FLAGG, Esq., was Chairman. As a home illustration of the subject, Mr. F. remarks that last autumn he arranged in a table the products of his orchard "for seven years. Now, in this case, the naked fact was that each year had furnished a given number of barrels of apples. A new fact, however, was that on alternate years the product was about one-half what it was in other years. Another new fact which appeared was that trees of early apples produced a smaller quantity of apples, but larger cash returns than winter fruit. These facts, thus arrived at in a satisfactory way, have an immediate practical value to myself or any other person under like circumstances."

The Report presents a detailed summary of the information given on the subject through the COUNTRY GENTLEMAN, and submits a full and well considered plan for adoption by the Society, to procure returns of the Agricultural Statistics of the County of Madison. We need scarcely add that we are glad to see the good seed that was sown with a primary reference mainly to our own State, already springing up and bringing forth fruit away out in Southern Illinois.

THOMAS' FRUIT CULTURIST.—A Michigan Subscriber writes us under date of May 21, 1862: "I have been almost a constant subscriber for your paper for some fifteen years, have acted as agent part of the time, and have been very much pleased and entertained with it. My copy of *Thomas' Fruit Culturist* has been very much used here, and is pronounced the best work on fruit to be had. It has done a great deal of good, giving such full and complete descriptions. My copy was published, however, in 1850, and I wish another of a later edition. C. F. M." Since the date mentioned by our correspondent, an edition has been published considerably enlarged, and with farther information as regards varieties of Fruit of more recent introduction. We can send him a copy, postpaid, for \$1. The price at which it is generally catalogued is \$1.25.

EXTRAORDINARY ASPARAGUS.—We received last week two bunches of Asparagus—25 stalks in each—weighing each about 3½ pounds, accompanied by the following note:

Oyster Bay Cove, May 19. GENTLEMEN:—I send you to-day by express, two bunches of Asparagus, to show you what we can do in raising that vegetable on Long Island. What I send you is from a bed two and three years old. As I thought you would like to see some that we call fine, (though I have seen larger,) I took the liberty of sending it, hoping you will receive it in good order.

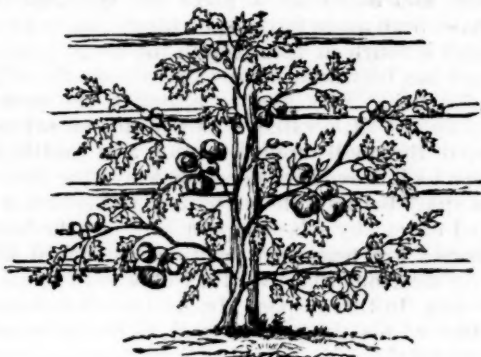
THOMAS YOUNGS.

We cannot say more than to add, with our thanks, that this specimen of Asparagus was very greatly admired by all who saw it, and still more by those who ate it. It reached us in perfect order.

It is said in the newspapers that "Belle of Brunswick," a 2:40, 1,000 pound, 15 hand, 5 year old grade Morgan mare, has just been shipped from Maine to Liverpool, for Mr. John De Costa, who pays \$800.

Inquiries and Answers.

TOMATOES.—Can you give me a plan for raising the earliest tomatoes? M. A. J. [For ordinary out-door management, start the plants in a hot-bed, hot-house or warm apartment of a dwelling well lighted, as follows: Make boxes of rough half-inch boards five or six inches square, and three or four deep; leave the bottoms without nailing in, but wedged so as not to drop out. Fill these with rich earth, plant the tomato seed, and give warmth and light. This may be done several weeks before it would be safe to set them out. When there is no farther danger of frost, set them in open ground, by pushing out the bottom. The soil should not be extremely rich, or the stems will grow too luxuriantly at the expense of the fruit. When the stems have grown two feet or as soon as the fruit begins to set, pinch off the tops, to induce the



Trellis for Tomato Vines.

formation of flowers and fruit. If a suitable house is provided for them, they may be planted as early as February, and then changed once or more to larger pots or boxes, as they increase in size. They should be supported by a small trellis, as shown in the accompanying figure.]

A TROUBLESOME WEED.—This Scour grass is making great headway against me. Can you or any of your readers tell me how to exterminate it? It has taken possession of meadow and every place where the hoe does not come. I do not know the proper name of it, and inclose a small piece that you may call it by its right name. J. B. S. [We do not know the true name of the weed enclosed, but will endeavor to ascertain it. We believe it to frequent wet land particularly, and that the only remedy is to plow up, drain and re-seed the meadows; but perhaps our correspondents can give better advice.]

IMPURE CHARCOAL FOR MANURE.—Is charcoal which has been used for rectifying liquors, valuable as a manure? If so, what is the best mode of applying it, and to what crops should it be applied? M. A. J. [The great value of charcoal consists in its power to absorb fertilizing material for plants; we do not think the matter which saturates it in this instance is of much value, but prevents it from receiving anything else better. It does not seem probable therefore that such charcoal can be of much utility.]

RANCID BUTTER.—Can you inform me, through the Co. GENT., if there is any way to improve rancid butter? I have looked through two volumes, but cannot find the information required. W. C. [We have seen it stated that rancid butter may be rendered sweet and good, by churning it in new milk. Try it and give us the result.]

A "QUARTER" OF WHEAT.—Will you oblige me by mentioning exactly what the English "quarter" of wheat is, to which I see so frequent reference in the columns of the Co. GENT. A. P. [A quarter of wheat contains eight imperial bushels, and an imperial bushel contains 2,218.192 cubic inches, while our American measure is the old Winchester bushel, containing 2,150.42 cubic inches—so that the English measure is 67.77 cubic inches larger than ours. This difference in measure must be always calculated in comparing prices; 33 Winchester bushels, in point of fact, are very nearly equal to 32 imperial bushels.]

LAYERING GRAPEVINES.—When and how must I layer grapevines, to get them to take root, that I may detach them from the parent root to transplant? I have a few Isabellas and Concord which I wish to multiply. A little information on the subject, will be gratefully received. J. M. SHAFER. Kalamazoo Co., Mich. [Nothing is easier than to propagate grapes by layers. Early in summer, say during the middle or latter part of June, bend down the fresh shoots, and cover

them in the middle with three or four inches of earth. To facilitate the operation, a cavity should be made in the surface of the soil for admitting them. If the ground is quite dry, bury them deeper. They will send out roots at every joint thus covered, and they may be taken up late in autumn or the following spring, cut off from the main vine, and each rooted layer cut into two parts at the middle, thus forming rooted vines. Set them out and let them grow another season, and they will make good strong vines. In setting out, do not allow much of the vine to remain above ground.]

RANCID BUTTER.—From much experience at sea I am enabled to give your inquirers about rancid butter (in the Co. GENT.) some practical hints. After repeated trials I have found the following the best method of restoring bad butter, if not too far gone: Place the butter in shallow wooden tubs, spread no thicker than two or three inches deep; with a knife or spoon, channel it thickly "criss-cross" down to the bottom of the layer. Over this pour strong brine, (I have used the brine from pork barrels,) covering the butter to the depth of an inch or more. One night's treatment is generally sufficient to "cure" pretty strong and obstinate butter. Should the "curing" be efficient, the butter may be salty. A washing will clean it, but the rancidity will return immediately if all the salt is washed out. DR. E. F. DRAYTON. New-York.

BUTTER-MAKING.—At this season of the year many farmers who do not follow butter-making as a business, have more than they need for home consumption, and would like to put it away for winter use, among whom is the writer. Will some of your correspondents furnish the process (in the great butter district of Orange county,) from the milking of the cow to the closing up of the firkin? Will butter taste of the wood if put into freshly made oaken casks? J. R. W.

Havre de Grace, Md.

CRIBBING.—I would inform "A READER" of the COUNTRY GENTLEMAN who "has a young and valuable horse which has taken to cribbing," that I was once similarly situated with him. I had a young and valuable horse which had this very unpleasant habit, and so far as I have been able to learn, it is considered a habit, not a disease, and I never yet saw or heard of a horse that had this habit that was cured of it, neither have I ever known a satisfactory cause assigned for the habit. I had a remedy which I applied to my horse to prevent his cribbing, which would prevent it as long as it was applied, but whenever it was removed the horse would resume the practice again. The remedy was to take a narrow strap and buckle it round the horse's neck or throat close to the head, the strap to be drawn tight enough to fit close to the neck, but not so tight as to interfere with his breathing or eating. I never saw my horse attempt to crib more than a few times after the strap was put on his neck, as long as it remained there; but whenever it was taken off he would commence again, thus showing that the inclination or desire for the habit was not affected by the application.

Wilmington, Vt., June, 1862.

C. T. ALVORD.

PEPPERMINT.—Can any of your readers give me the address of some person engaged in raising peppermint and manufacturing the oil—how to grow the plant, and how many pounds of oil per acre it will yield? WIDE AWAKE.

DOMESTIC WINES.—Will some of your correspondents please give a few good recipes for making cherry wine? The cherries are the common ungrafted fruit. Also how to make wine out of blackberries and raspberries? If they are mixed, will the wine keep as well as if they were not mixed? Middlesex Co., N. J. D. C.

LICE ON CALVES.—Tell your correspondents, who may be concerned, to try an application of coal oil. B. A.

DEATH OF LAMBS.—I want some information regarding the loss of lambs from a flock of six Leicester ewes, 4 years old, having raised only one from 9 dropped this spring, and but little better luck for the last two years before this. They have the range of 60 or 70 acres with cattle, and come to barn in autumn, in good, first rate condition. They are wintered solely on hay—no grain. Do they fall away during winter, and require graining? Have never grained them, fearing they would become too fat for breeding. What would be the effect, if fed a small quantity of roots and grain daily through the winter or till lambing comes on? C. P. BATES. Richfield, N. Y.

ANSWER to G. M., Conn., who wishes to know the best and easiest way to furnish water for his ducks, as there is no water in his yard. Set an old tin pan in some convenient place, and keep it full of fresh water, or a better way would be to dig out a good sized trough, and sink it in the ground to within an inch or two of the top of the trough. Then with an adjustable conductor extending from the pump to

he trough, his ducks might be supplied with water at a trifling expense, and amusement furnished his children at the same time. Raising ducks to sell, may be profitable in Connecticut, but my husband thinks it is not in Iowa.

Benton Co., Iowa, May 21.

AVIS.

DISEASE OF A HORSE'S EYE.—I have a fine five year old horse which has a queer discharge from the left eye. It has now been running near five months. Sometimes it is as clear as water, (more I think when at work,)—again, thick, white and ropy. The eye itself seems unaffected, nor are the lids. I suppose it is a cold in the head, and the discharge accompanying it makes its way through ducts of eye and vicinity. He had some cough, but when hay was dampened it has stopped. Can you favor me with your opinion.

Sabbath Rest, Pa.

J. P. BELL.

WHAT WILL DESTROY HEN-LICE?—In the spring my hen-house is so full of lice that I am obliged to shut it up, and to keep my fowls out of it until some time in the fall. In the spring of 1861, I set a hen in it, and after she had set about a week she was so covered with lice that she could not keep her nest; and we lost the eggs, or rather the chickens, which we expected from them. The hen we greased with fresh lard, but it would take too much lard to grease the whole of the hen-house. What else is there?

A READER.

WIND MILL.—Will you or some of your correspondents inform me through the Co. GENT., who had the wind mill at the State Fair last fall? R. B. U. Clinton Corner. [We observe that a prize was awarded to Merrill & Wood, Norwich, N. Y., on "best arrangement for raising water other than pump," but we have quite forgotten what sort of "arrangement" it was.]

FRUITS INTERMIXING.—A subscriber in Kansas sends quite a long string of queries, over the signature of NOVICE, several of which are necessarily deferred for the present. He writes: "Will fruits of any kind, especially grapes and strawberries, be changed in character or kind by planting various kinds in close proximity to each other?" [The only effect of proximity is upon the seed or rather upon the product of the seed when sown. Two varieties of grapes or of strawberries planted so closely together as to intermingle their leaves and fruit, will always remain just as distinct "in character and kind" as they ever were; but the seeds of either variety if planted will be likely to produce seedlings partaking of the joint nature of both the parent sorts.]

BOOK ON FLOWER GARDENING.—What book do you recommend for information on the garden cultivation of flowers? R. S. Madison Co. [Breck's Flower Garden, which can be sent post-paid from this office for \$1, will probably suit your wants more nearly than any other work.]

ALBANY COUNTY AG. SOCIETY

At a special meeting of the "Town Union Agricultural Association," held at the village of Clarksville on the 7th June, for the purpose of re-organizing, the following steps were taken:

The title of the Society was changed to the "Albany County Agricultural Society," and a Constitution adopted to comply with the act entitled, "an Act to facilitate the forming of an Agricultural and Horticultural Society," passed April 13, 1855. The following named are the officers for the first year:

President—JURIAN WINNE, Bethlehem.

1st Vice Prest.—JAMES W. JOLLY, Coeymans.

Vice Presidents—Luther Tucker, Martin Hallenbeck, Geo. Young and Jacob Simmons, Albany; James Reamer and Ira Boyington, Bern; John H. Booth and David Van Allen, Bethlehem; Wm. Tuttle and John Burhans, Coeymans; Peter Shaver and Abm. V. Mynders, Guilderland; Stephen Mercelus and Elon Gallup, Knox; Robert Taylor and Geo. W. Bender, New Scotland; Judson Conklin and James E. Mackey, Rensselaerville; Dr. P. B. Noxon and C. P. Williams, Watervliet; Chas. Bently and Jacob Dorman, Westerlo.

Secretary—Samuel C. Bradt, Albany.

Treasurer—William H. Slingerland, Bethlehem.

Directors—L. G. Ten Eyck and John Sloan, Bethlehem; O. H. Osborn, Watervliet; Alex. E. Willis, Coeymans; Henry Creble and David Callanan, New Scotland.

Description of an Artificial Fish Pond.

STEVEN H. AINSWORTH of West Bloomfield, in this State, who is well known as a successful fruit-grower, is also, it would seem, devoting his attention with equal success, to the breeding of fish. The editor of the Rochester Democrat, who visited Mr. Ainsworth recently, gives the following account of his operations:—

The pond covers something over sixty rods of ground, and is filled by conducting the water, from thirteen different springs, in tile laid under ground, and brought into pools a short distance above the pond. From thence it flows over a prepared bed of gravel to the pond. Perhaps one man in a million might have thought that a fish-pond, and above all a place for speckled trout, could have been made in the spot where this is located. The water is fourteen feet deep in the main pond, and this depth has been secured by excavation—the original depression being very slight, although the spot was swampy and of little value. As a means of saving every drop of the small supply of water, two parallel walls have been built around the pond, sunk into the blue clay, and the space between them grouted, so that not a drop is wasted except by solar evaporation. At the bottom, large stones are placed in positions to afford hiding places for the trout whenever they choose to retire from the hot sun. In this respect Mr. Ainsworth has studied the habits of his finny stock, and as far as he could, compensated them for removing them from their native streams in Victor, Springwater, and other places, where they were captured. The walls around the pond are carried to the height it is intended the water shall reach, and then a sufficient quantity of earth placed over them to sustain shade trees, a large number of which are in a thrifty condition. The water comes into and passes from the pond through fine sieves, through which nothing but the water can pass.

Inside of the parallel walls there is a slope wall, and from the top the ground recedes in all directions so that no surface water is washed into the pond. In places where it is likely to stand too long it is carried off by tiling. Altogether, it is a perfect gem. Nothing has been neglected, and those who have the facilities, the good taste and enterprise to follow Mr. Ainsworth's example would be greatly aided by paying him a visit. He will, we run no risk in assuming, take great pleasure in giving them the benefit of his experience.

It is, so far as we are advised, an unsettled matter how many fish can live in a given quantity of water. Mr. Ainsworth has placed nearly eleven hundred trout in his pond, and some additions have been made by the process of artificial fecundation; and this process he will continue to follow until his pond is sufficiently stocked. The spawn last year placed in the pools prepared for the purpose was mostly covered with sand or washed into still water, so that from thirty thousand eggs only about one hundred young fish—now an inch long—have been discovered. He will no doubt be more successful with future experiments. We have an impression that the most successful experiments have been made by using a succession of boxes, through which the water runs over gravelly bottoms, and into which the sand and earth is not washed. If it were possible to protect all the spawn deposited by the small number of trout now left in our streams, we should quickly see them re-stocked to their full capacity. But it is known that even under the most favorable circumstances only a few of the eggs hatch, and of those which do much of the product is devoured by snakes, water fowl, and the larger fish. It would be a very easy matter to resort to artificial fecundation, by which an immense quantity of the most beautiful and delicate fish known in American waters could be raised.

But to the sport. Both bait and fly were taken the instant they touched the water, and had a hundred hooks been upon each line, each one would have its victim. They were of various sizes when put into the

pond two years ago. Those of three years are now plump pounders. A majority are of three-fourths and half a pound. Mr. Ainsworth knows their ages as well as those of his colts and cattle. In swift running water, however, they do not grow as rapidly; they are longer and less plump. There are a few two and three pounders, but here as in other waters, these seldom honor the angler's hook with a nibble. Of course we could not think of following up the sport for only a few minutes—just long enough to try the game of the ten noble fellows which were seen in the show window of the Arcade House yesterday. And they were game. Every one of them made the rod bend and tremble. The females were invariably returned to the water. But more exciting sport remained. The food for their evening repast was now dealt out by spoonsful at a time, and the moment it struck the water dozens of great fellows darted for it. They knocked against one another under the water and above the water, and a person standing close to the edge would in five minutes be well "spattered" from head to feet. The "whipping" had made them a little more shy than usual, but they will feed from the hand of their owner, and leap from the water when shown their food upon a spoon!

Mr. Ainsworth is a public benefactor in what he has done. While constructing and filling a pond, at a large expenditure, for his own amusement and gratification, he has demonstrated the fact that, under circumstances more favorable as regards water and places for making ponds, immense quantities of the most delicious food can be raised at almost a nominal cost. When this country becomes as populous as France such advantages as we possess for the propagation of fish will be appreciated and improved. Until then we can only hope too see here and there a liberal and public spirited citizen like Mr. Ainsworth set the example.

[For the Country Gentleman and Cultivator.]

CORN AFTER BUCKWHEAT.

MESSRS. TUCKER—Your correspondent, E. L. HOLDEN, asks "brother farmers to give their "experience" on raising corn after buckwheat." I well recollect, when a lad, that my father plowed and planted a field to corn, on a small portion of which was raised buckwheat the year previous. The soil of that part on which the buckwheat grew was precisely like that of the other part, and the crop on this latter, which preceded the corn, I think was rye. It was all plowed and otherwise treated alike; no manure on any of it. Now for the result, which was very much like that of Mr. Holden's labor, only "more so," for on the buckwheat land corn enough was not obtained to plant the same ground again, while on the other part a fair crop was raised.

Again, I know a man whose farm is not a hundred miles from mine, who insists that corn can be raised after buckwheat, and that the buckwheat makes no difference with the corn crop. He has tried it under my own observation, and has succeeded in raising some corn, a fair crop, but then he takes land already in a high state of cultivation, and by manuring highly, and perhaps applying other fertilizers, he does raise some corn after buckwheat, but in all probability not near the amount he otherwise would by applying the same manure, &c., on land not immediately preceded by a crop of buckwheat.

Your correspondent to whom I allude, says he would like to know the reason why corn cannot be raised after buckwheat. I cannot give you the reason, but will say that facts are stubborn things to contend with, and I think we can more profitably spend our time, labor, &c., than by trying to raise corn directly after buckwheat.

Belchertown, Mass.

HOMESPUN.

THE OLD PEAR TREE.—The old Stuyvesant pear tree, (175 years old,) corner of East Thirteenth Street and Third Avenue, New-York, is again in blossom, and appears more profuse in its blossoms than for years past

FARMING AT THE EAST vs. WEST.

The following is an extract from an address upon the Agricultural prospects of New England, delivered by the Hon. DANIEL NEEDHAM, at Stanstead, C. E., on the 22d ult.:

"When the young man leaves his New England home, and with wife and children emigrates to the far West, what influences move him? Is it not the bold statement that the virgin soil of that distant land readily produces fifty bushels of corn and forty bushels of wheat to the acre? Is it not for this prospect, that he leaves all his old associations, the land of his birth, the land of abundant schools and churches, the land of good roads and great comforts, to suffer privations in a new country, where school-houses, churches and roads are to be built? The question he should put to himself is, will I better my condition by emigrating? If the land is more productive of corn and wheat in Illinois, Wisconsin and other Western States, is it more productive of money? Admitting fifty bushels of corn can be raised to the acre, do we not raise that quantity on many farms in New England? According to the census of 1850, fifty bushels was the average of the State of Connecticut. But if you raise fifty bushels, how much money will it bring? At this very moment, within sixty miles of Chicago, corn can be bought for twelve cents a bushel. Fifty bushels at twelve cents a bushel, will give you six dollars; and in order to produce this paltry sum of money, you must plow, harrow, hoe, harvest, shell and market an acre of corn. What will your acre bring you in Vermont? Corn is now seventy cents a bushel; and if you raise fifty bushels, as you should if you are a good farmer, your acre will produce you *thirty-five dollars*.

How is it with wheat? Wheat is now worth within sixty miles of Chicago, sixty cents a bushel. The average crop of Illinois is less than twenty bushels; and for your acre you will realize less than twelve dollars. In Vermont, our average crop is seventeen bushels, which to-day is worth one dollar and twenty cents a bushel, yielding for the acre, twenty dollars and forty cents.

But suppose you convert your corn into pork, will that help the matter? Pork has been selling this entire winter, within sixty miles of Chicago, at two cents a pound.

The man who leaves Vermont and goes West to get rich by agricultural industry, makes a sad mistake. Northern men have gone West and secured wealth, but it has been by fortunate investments in real estate. Such men can be found in every school district of our State, men who by fortunate speculations have amassed wealth. But the time is far in the future, when men, by legitimate agricultural industry in the West, will reach the coveted goal of wealth."

Plowing Heavy Lands.

It would be interesting and important to know what would be the comparative results, in regard to the crops produced for three years, between lots plowed in furrows of fifteen inches and others of ten inches wide, on the soil alluded to. It is a rule in England and Scotland, as well as in some parts of this country, to plow clay land in as fine or narrow furrows as practicable, in order to produce the required friability, and give due exposure to the atmosphere, which is so necessary to develop the fertility of such soils. It may be said that the width of the furrows was not greater than usual in proportion to the depth. On this point it may be inquired whether the expediency of plowing sward to this depth has been demonstrated? Would it not be better, especially on clayey soils, to bury the sward at only a moderate depth, where it would more quickly decompose, and give more immediate benefit to crops—plowing deeper, if necessary, afterwards? Such is the practice in some sections distinguished for successful farming.—*Boston Cultivator*.

The Irish Farmer's Gazette estimates that nearly a million of dollars were spent last year, by the farmers of Ireland, for "spurious manures."

SHADE TREES.

EDS. CO. GENT.—I wish that either you or some one of your numerous contributors, would give us an article upon Shade Trees, the proper time for transplanting, and the after cultivation. I think it is a subject that would interest all your friends, and it most certainly is a very important one. Nothing, I think, adds more to the comfort of the homestead, than fine large shade trees about the house. Ride over the country, and how many places you will see without a tree near them, the hot summer sun beating down upon the unsheltered walls, as if trees were not given on purpose to make our dwellings comfortable. But how pleasant, after going over miles of our bare country roads, to come upon a place where some farmer lives who is alive to the beauties of nature, and has planted a row of trees by his road-side. You almost unconsciously give him your blessing as you pass. At the same time almost every one is willing to acknowledge how much trees add, both to the *looks* and the comfort of a place; but "oh, its too much trouble," or "I have not time," or "it costs more than it will come to," is the almost invariable answer you will get to suggestions of improvement.

Let every man then, that owns a place, make it his business the coming fall, when work is not driving, to set out trees around his house, and by the road side, and my word for it he will not repent it. Let every one do this, and in a few years, instead of desolate "*pikes*," our roads would be perfect avenues, and it would be as it ought, a pleasure to ride about.

R. Sullivan Co., N. Y.

If every land owner entertained the same views as our correspondent, we should see a beautiful country in a few years. It is strange that men who have no appreciation of rural ornament, should not perceive that their farms would be thus increased ten times as much in market value, as the cost of planting the trees. We invite all our readers to give attention to the subject, and to read the articles on pages 37 and 40, of Rural Affairs, vol. 1; and on pages 225, 233, 246, 250, &c., of vol. 2.

MANAGEMENT OF CUTTINGS.

The following directions by Mr. A. S. FULLER, on the management of cuttings, made at a recent meeting of the Brooklyn Hort. Society, will be interesting to our practical readers:

Hardy cuttings—that is from out-door hardy wooded plants, such as currants, will succeed best if made in September when the wood is ripe; they are cut just under an eye or bud and left about six inches long—planted in rows about two inches apart in the rows; by spring they will be ready to make a large growth. Be sure to pack the earth in tight at the bottom of the cutting or they will not succeed. In this way most of the hardy out-door plants can be propagated, such as the Rose of Sharon, Spireas, Deutzias, &c. For the *grape* two eyes are best, the top one nearly covered.

The Delaware grape, which is one of the hardest vines to propagate, can be readily done by taking small cuttings before the frost and planting where they are to grow, covering well during the winter with leaves, &c., and by spring they will be well calloused over and ready to make good shoots. Of soft-wooded plants, take off part of the old wood along, and they will root more readily. Quince and other things of that kind will do better this way. Evergreens, such as the Arbor Vitæ, Juniper, &c., if small cuttings are put in a frame out-doors and covered with a sash, whitewashed, they will grow very easily. Some kinds of plants will grow best and only from cuttings of the roots, such as the Paulownia, Spireas, Blackberries, Raspberries, &c. Peach will grow readily in Georgia from cuttings, but here the winters are too long

and cold. The most favorable state for cuttings to grow in, is when the roots will form and not produce any foliage. Layers are so near a cutting that he said he would mention a few ways that were practiced—by bending a branch down and covering with earth late in the fall, they will root the first year; to facilitate the rooting they are partly cut through, so that the earth can come in contact with the inner bark. He showed a Pink which had been treated in that way in August, and now it was a perfect mass of roots, and ready to be separated from the old plant and put in a pot; if this had not been cut, it would not have rooted in two years. Layers from evergreens can only be made while the sap is in full vigor, for if cut at any other time, they will throw out the resinous matter and prevent the sap from forming roots. This is why so few of the gardeners succeed in raising choice evergreens.

[For the Country Gentleman and Cultivator.]

Buckwheat as a Green Manure.

In the article on Corn after Buckwheat, in the Co. GENT. of April 10, it is said that "buckwheat profits from the manure which is laid on for a succeeding wheat crop, and which ripens and becomes suitable for the nourishment of wheat." In reply to this, our correspondent, A. W. W. of Chester Co., Pa., says:

Twenty or more years ago, having seen the same thing recommended as often perhaps as once a year from my boyhood, I determined to try it. Accordingly a six acre lot was limed, manured, and sown with buckwheat in the month of June. When it was in full bloom, it was harrowed down and plowed under, and in due time sown with wheat.

An aged neighbor who owned the adjoining land, but who knew nothing of chemistry, and probably could not spell the word, predicted confidently that the wheat would do no good. He had tried it, and he thought the buckwheat poisoned it. And so the result seemed to show. Poisoned it was, certainly. When we went to cut the wheat, the old neighbor was on the ground, pleased, as most prophets would be, to see their own predictions verified. He called it "streaked." I considered it too near a total failure to ever attempt a repetition of the experiment. I have time and again since then seen the same thing recommended, but my own testimony has been and is in agreement with my old neighbor's, "It is poison."

CURE FOR WARTS.

Bathe the hand having warts in warm water, dry with a soft towel, and touch the top of each wart only with aquafortis; a knitting needle or anything having a small point will answer to take up a small drop sufficient for each wart. In a few days a dead pelicle will be formed on the top of the warts, which will scale off when bathed in warm water. When this is removed apply the aquafortis again, and so on repeatedly, till the entire wart is reduced to a level with the true skin. This mode is effective, and without pain. The wart so treated will never come again; but care must be taken that the aquafortis does not touch the true skin about the wart, as it may blister it.—*Irish Farmer's Gazette*.

In the Report of the Ithaca Farmers' Club for 1861, submitted for publication in the Transactions of the State Ag. Society, we note the following reference to the subject of the collection of Agricultural Statistics:

"We are looking forward hopefully to the operation of the law of the present session for the collection of Agricultural Statistics throughout the State, and cannot doubt that the Agricultural interests of the State will be greatly benefitted by the information thus obtained, if the law is faithfully executed. And as its execution will depend to a great extent upon the active co-operation of the various Agricultural Societies of the State, we take pleasure in embracing the present opportunity to pledge the earnest co-operation of the Ithaca Farmers' Club, in carrying the law into effect."

SHOW & SALE OF SOUTH-DOWN SHEEP.

Providence permitting, my 12th Annual Sale of Yearling Rams, and Ram and Ewe Lambs, will take place on **WEDNESDAY, SEPT. 3d, 1862**, at my residence, 2½ miles from Holmdel, Monmouth Co., New-Jersey.

Having now a flock surpassed by none in any country, for thrift, weight, wool, and fine quality, I with confidence invite the attendance of sheep-growers at the above mentioned time.

Please send for Circular.

Particulars about Railroads, Steamboats, &c., will be given in August papers, as well as in Circular.

J. C. TAYLOR.

June 1—m2t.

Holmdel, N. J.

IMPROVED LIVE STOCK FOR SALE.—

**SEVERAL YEARLING SHORT-HORN BULLS.
BERKSHIRE PIGS FROM SPRING LITTERS.**

L. G. MORRIS, Scarsdale P. O.,

May 29—w&mtf.

Westchester Co., N. Y.

SHORT-HORNS AND ALDERNEYS FOR SALE.

The subscriber offers for sale, at reasonable prices, a number of Short-Horn cows, heifers and bulls, of Bates' blood, and in prime condition, and also a few pure and high grade Alderney cows, heifers and bulls of the best blood in the country, delivered at the cars in Albany free of charge. Address **Dr. HERMAN WENDELL,**

Feb. 13—w&mtf.

Hazelwood, Albany, N. Y.

PREMIUM CHESTER COUNTY WHITES.—

THOMAS WOOD continues to ship to any part of the Union these celebrated **HOGS** in pairs not akin, at reasonable terms. Address **PENNINGTONVILLE, Chester Co., Pa.**

April 3—wly—June 1—mly.

A SURE CURE WARRANTED OF DIPHThERIA,

Sore Throat, or Nursing Sore Mouth, by the use of Mrs. SARAH LOHR'S 'DIPHThERIA CURE.' If used according to direction on each bottle, at an early stage of the disease, WE WARRANT A CERTAIN CURE, OR REFUND MONEY IN ALL CASES.

Use it. It will save LIFE and MONEY.

No physician needed. A swab, FREE, with each bottle. Two sizes of bottles, 35 and 50 cents, singly; \$2.25 and \$3.50 per dozen at wholesale, cash.

Send for our numerous certificates, or get them of your Druggist. Sold by Druggists everywhere. Or address **LOHR & CO.,**

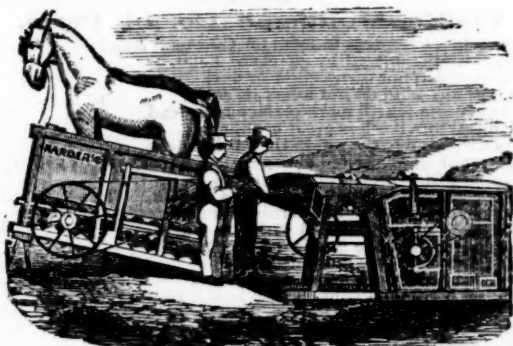
May 1—w5tm2t.

London, O.

BUY THE BEST

AT THE

EMPIRE AGRICULTURAL WORKS.



The undersigned manufacture Changeable Endless Chain Railway

HORSE POWERS,

COMBINED THRESHERS AND CLEANERS,

Threshers, Separators, Wood-Saws, &c.

These Powers produce more power, with less elevation, and are operated with greater ease to the team than any other, requiring very slow travel of Horses, being only about one and a half miles per hour when doing a good fair business, which is about 400 to 500 bushels of Oats per day, or half that quantity of Wheat or Rye.

The Thresher and Cleaner runs still and easy, separates the grain perfectly clean from the straw, cleans quite equal to the best Fanning Mills, leaving the grain fit for mill or market, and is capable of doing a larger business without waste or clogging than any other Two Horse Cleaner before the public.

For price and description send for Circular, and satisfy your self before purchasing. Address **R. & M. HARDER.**

June 5—wltmt.

Cobleskill, Schoharie Co., N. Y.

Agricultural Books for Sale at this Office.

CHESTER COUNTY PIGS FOR SALE.—

SAMUEL HILL, Jr.,

Florence Nursery, Florence, Mass.

June 12—wlyr.*

AYRSHIRE STOCK AND PRINCE ALBERT PIGS FOR SALE.

THOROUGH-BRED AYRSHIRE STOCK, from importations of choice animals in 1859.

PRINCE ALBERT PIGS from imported Stock, in pairs not akin.

Address

CHARLES M. POND,

Hartford, Ct.

REFERS TO

E. H. HYDE, Esq., President of Connecticut State Ag. Society, Stafford, Ct.

SANFORD HOWARD, Esq., Editor Boston Cultivator, Boston, Mass.

MASON C. WELD, Esq., Editor of American Agriculturist, New-York.

June 12—w4t.

"KITTY CLYDE."—I offer for sale the above named

THOROUGH-BRED FILLY,

four years old, 15 hands, half an inch high—color chestnut sorrel. She was got by celebrated race horse **REVENUE** out of **Rosabel**, by imported **Consternation**; grand dam **Madam Celeste**, by **Andrew**; great g. dam **Lady Flirt**, by **Old Hickory**; g. g. dam by **Durock**, sire of **American Eclipse**—g. g. g. dam by imported **Baronet**, &c.

She is broken to ride, and is in fine condition to put in training, and her form and action indicate that she will make a first class race horse.

JAMES R. REES, Clyde, Wayne Co., N. Y.

June 5—w4t.

SHORT-HORNS FOR SALE.—

Two Bulls—one two years old, sired by **Neptune**, 3192, (11847.) dam **Isabel**—one yearling, sired by **Neptune**, 3192, (11847.) dam imported **Finella**. Also, several Heifers, Bull and Heifer calves.

The subscriber, on application by mail or otherwise, will furnish catalogues containing pedigrees, &c. Address the subscriber, Postmaster at **Norman's Kill, Albany Co., N. Y.**

May 22—w6t.

WM. H. SLINGERLAND.

ITALIAN BEES! ITALIAN BEES!!—

I will send an **ITALIAN QUEEN** for Five Dollars and guarantee her safe introduction among the Native Bees, if directions are followed. Address **CHARLES E. HALLENBECK,**

May 15—w6t.

Germantown, Columbia Co., N. Y.

ALDERNEY COWS, CHINESE SHEEP AND WHITE CHESTER PIGS

for sale. Apply to

WILLIAM REDMOND,

May 1—w13t.

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